PIONEER®
The Art of Entertainment

Service Manual

DEH-P835R/EW

ORDER NO.
CRT2036

MULTI-CD/DSP CONTROL HIGH POWER CD PLAYER WITH RDS TUNER

DEH-P835R EW

MULTI-CD CONTROL HIGH POWER CD PLAYER WITH RDS TUNER

DEH-P735R EW

COMPACT disc DIGITAL AUDIO

- **See the separate manual CX-597(CRT1829) for the CD mechanism description, disassembly and circuit description.**
- **The CD mechanism employed in this model is one of CX-597 series.**
- **This device employs an inverter as the power supply for EL. The inverter has an output voltage reach approximately 200 volts(AC). Utmost care should be used not to suffer from a possible electric shock, accordingly.**
- **The words "Sound Retrieval System" and the SRS Symbol(●)are trademarks of SRS Labs, Inc. Patented in the USA and selected countries.**
  ***Registered in the US and selected foreign countries.**

  (●)*SOUND RETRIEVAL SYSTEM

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PIONEER ELECTRONICS ASIACENTRE PTE.LTD. 501 Orchard Road, #10-00, Lane Crawford Place, Singapore 0923

K-FED. APR. 1997 Printed in Belgium

● **CD Player Service Precautions**

1. For pickup unit(CXX1230) handling, please refer to"Disassembly"(CX-597 Service Manual CRT1829). During replacement, handling precautions shall be taken to prevent an electrostatic discharge(protection by a short pin).
2. During disassembly, be sure to turn the power off since an internal IC might be destroyed when a connector is plugged or unplugged.
3. Please checking the grating after changing the service pickup unit(see page 58).
4. This device employs an inverter as the power supply for the EL. Utmost cars should be used not to suffer from a possible electric shock, accordingly.

1. SAFETY INFORMATION

1. Safety Precautions for those who Service this Unit.

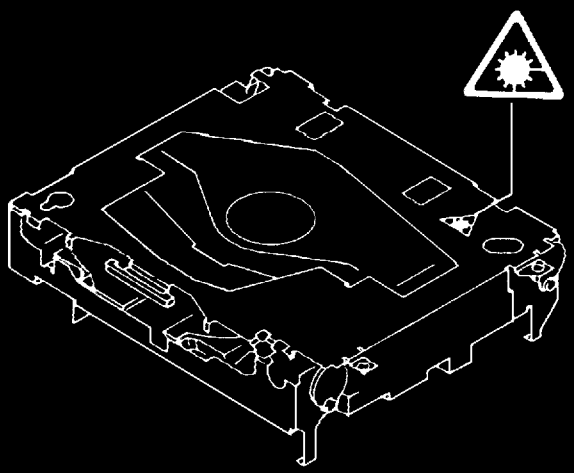
- **When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.**

Caution:

1. During repair or tests, minimum distance of 13cm from the focus lens must be kept.
2. During repair or tests, do not view laser beam for 10 seconds or longer.

2. A "CLASS 1 LASER PRODUCT" label is affixed to the rear of the player.

3. The triangular label is attached to the mechanism unit frame.



4. Specifications of Laser Diode

Specifications of laser radiation fields to which human access is possible during service.
Wavelength = 800 nanometers

2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING

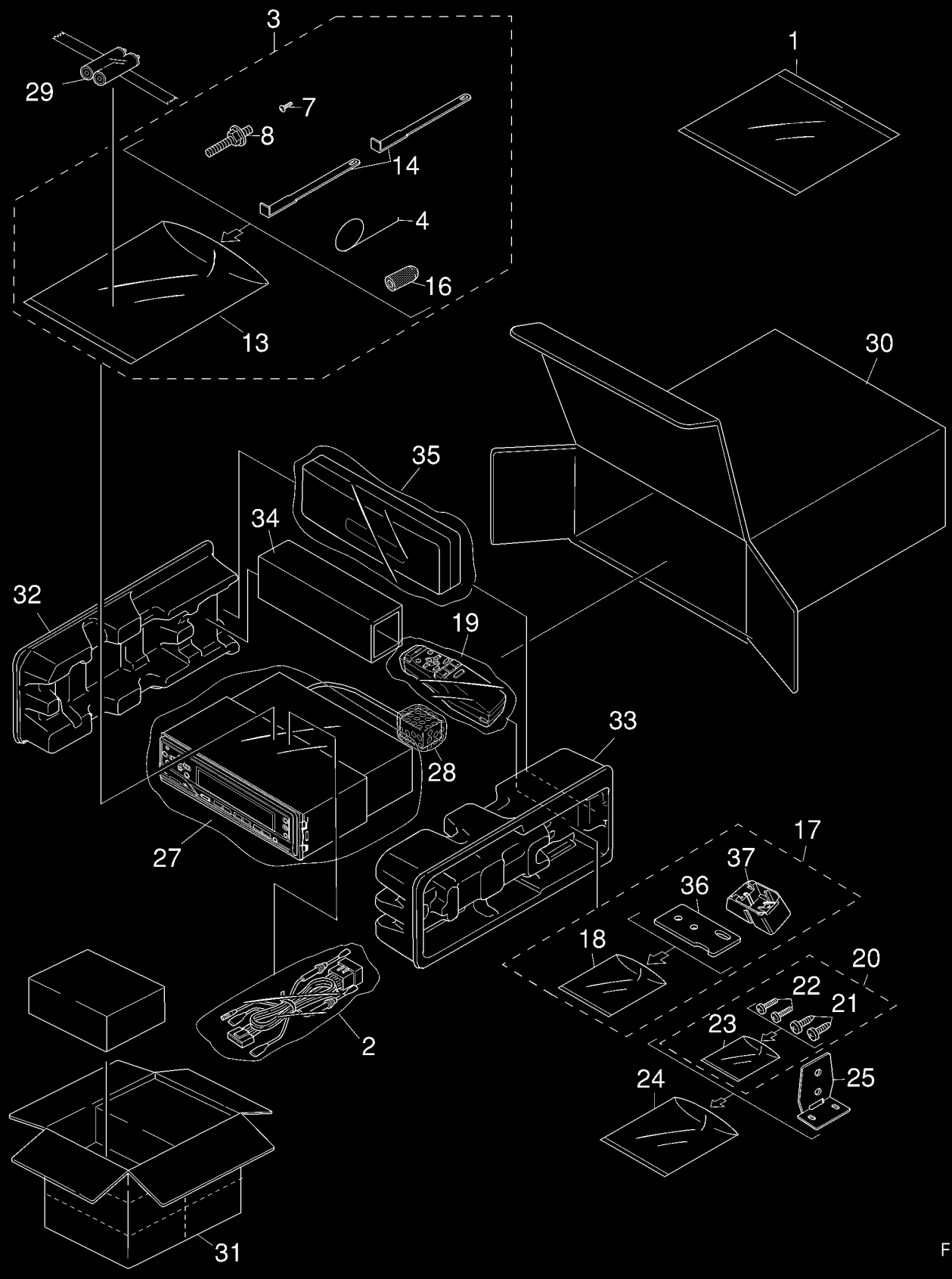


Fig. 1

NOTE:

- Parts marked by "＊"are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ▼ mark on the product are used for disassembly.

(1)PARTS LIST

Mark	No.	Description	Part No.
	1-1	Owner's Manual	See Contrast table(2)
	1-2	Owner's Manual	See Contrast table(2)
	1-3	Owner's Manual	See Contrast table(2)
	1-4	Installation Manual	See Contrast table(2)
	1-5	Installation Manual	See Contrast table(2)
	1-6	Installation Manual	See Contrast table(2)
*	1-7	Caution Card	CRP1145
*	1-8	Label	CRW1343
	1-9	Passport	CRY1013
*	1-10	Wrranty Cordt	CRY1087
	1-11	Polyethylene Bag	CEG1116
	2	Cord Assy	CDE5250
	3	Accessory Assy	CEA2065
	4	Spring	CBH-865
	5,6	•••••	
	7	Screw	CBA1120
	8	Screw	CBA1284
	9-12	•••••	
*	13	Polyethylene Bag	E36-615
	14	Handle	CNC5395
	15	•••••	
	16	Bush	CNV1009
	17	Base Assy	CEA2344
	18	Polyethylene Bag	CZE3188
	19	Remote Control Assy	See Contrast table(2)
	20	Screw Assy	CZE3198
	21	Screw	BNC40P120FZK
	22	Screw	BPZ30P100FZK
*	23	Polyethylene Bag	CEG-127
*	24	Polyethylene Bag	CZE3201
	25	Bracket	CZN6467
	27	Polyethylene Bag	CEG-162
	28	Air Cushioned Bag	CEG1192
	29	Battery	CEX1006
	30	Carton	See Contrast table(2)
	31	Contain Box	See Contrast table(2)
	32	Protector	CHP1766
	33	Protector	CHP1767
	34	Spacer	CHW1433
	35	Case Assy	CXA7194
*	36	Sheet	CZA3371
*	37	Base	CZN6466

(2) CONTRAST TABLE

DEH-P835R/EW and DEH-P735R/EW have the same construction except for the following:

Mark No.	Symbol & Description	Part No. DEH-P835R/EW	Part No. DEH-P735R/EW
1-1	Owner's Manual	CRD2353	CRD2358
1-2	Owner's Manual	CRD2354	CRD2359
1-3	Owner's Manual	CRD2355	CRD2360
1-4	Installation Manual	CRD2357	CRD2361
1-5	Installation Manual	CRD2472	CRD2476
1-6	Installation Manual	CRD2473	CRD2477
19	Remote Control Assy	CXB1159	CXB1160
30	Carton	CHG3281	CHG3285
31	Contain Box	CHL3281	CHL3285

● Owner's Manual, Installation Manual

Model	Part No.	Language
DEH-P835R/EW	CRD2353	English, Spanish
	CRD2354	French, German
	CRD2355	Italian, Dutch
	CRD2357	English, Spanish
	CRD2472	French, German
	CRD2473	Italian, Dutch
DEH-P735R/EW	CRD2358	English, Spanish
	CRD2359	French, German
	CRD2360	Italian, Dutch
	CRD2361	English, Spanish
	CRD2476	French, German
	CRD2477	Italian, Dutch

2.2 EXTERIOR

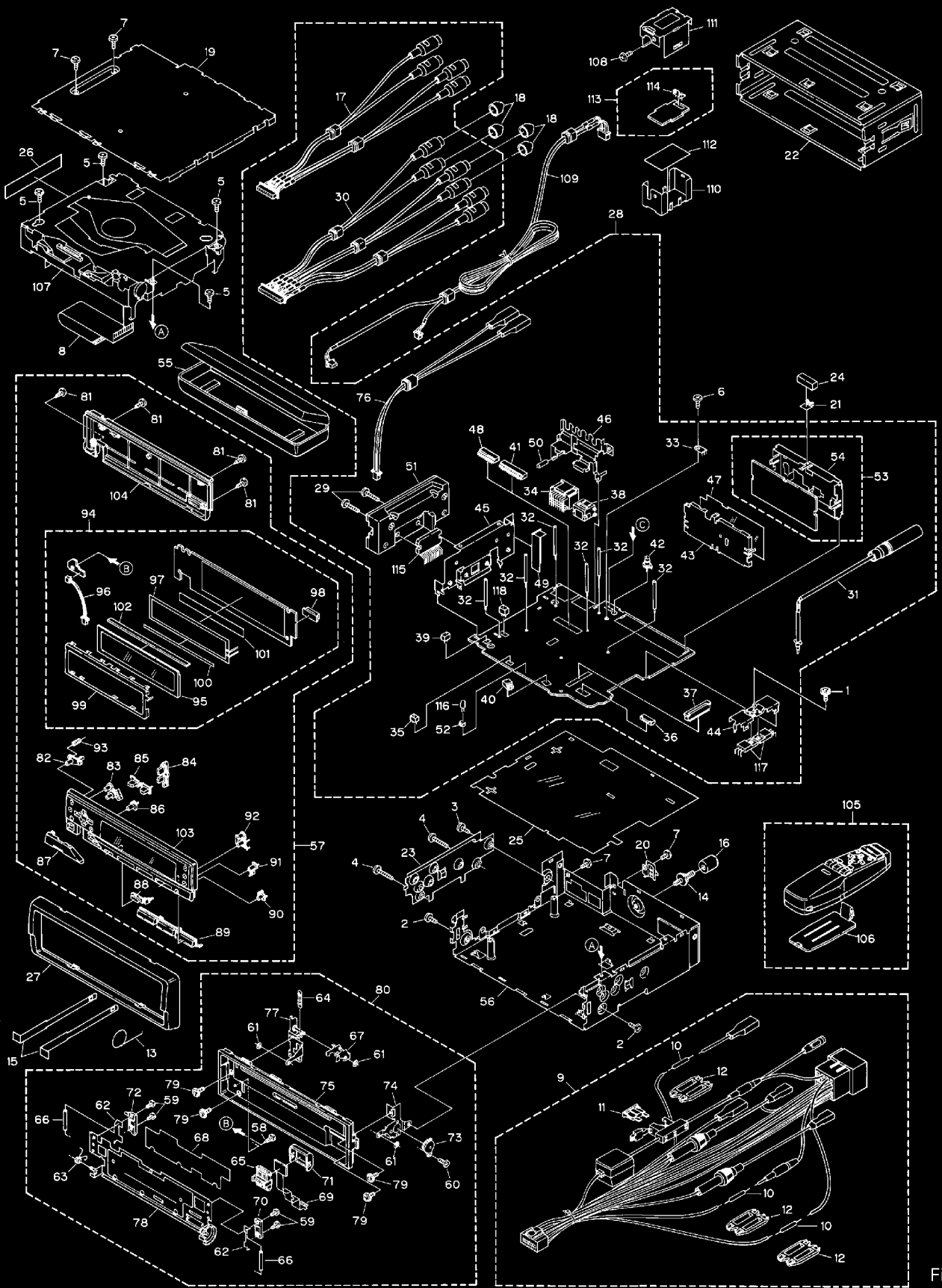


Fig. 2

● EXTERIOR

(1)PARTS LIST

Mark	No.	Description	Part No.
	1	Screw	ASZ26P080FMC
	2	Screw	BMZ30P040FMC
	3	Screw	BMZ30P050FMC
	4	Screw	BMZ30P180FMC
	5	Screw	BSZ26P050FMC
	6	Screw	BSZ30P055FUC
	7	Screw	BSZ30P060FMC
	8	Connector	CDE4864
	9	Cord Assy	CDE5250
	10	Resistor	RS1/2PMF102J
	11	Fuse(10A)	CEK1136
	12	Cap	CNS1472
	13	Spring	CBH-865
	14	Screw	CBA1284
	15	Handle	CNC5395
	16	Bush	CNV1009
	17	Cord	See Contrast table(2)
	18	Cap	See Contrast table(2)
	20	Holder	CNC4963
	21	Holder	CNC6469
	22	Holder	CNC6798
	23	Holder	CNC6924
	24	Cushion	CNM4870
	25	Insulator	CNM5143
	26	Spacer	CNM5304
	27	Panel	CNS4320
	28	Tuner Amp Unit	See Contrast table(2)
	29	Screw	BSZ26P160FMC
	30	Cord	See Contrast table(2)
	31	Antenna Cable	CDH1146
	32	Clamper	CEF1006
	33	Terminal(CN404)	CKF1059
	34	Plug(CN901)	CKM1187
	35	Plug(CN802)	CKS-783
	36	Connector(CN801)	CKS2212
	37	Connector(CN991)	CKS2774
	38	Connector(CN101)	CKS3408
	39	Connector(CN804)	CKS3582
	40	Connector(CN803)	CKS3596
	41	Connector(CN353)	See Contrast table(2)
	42	Mini Pin Jack(CN403)	CKX1046
	43	Holder	CNC6356
	44	Holder	CNC6431
	45	Holder	CNC6923

Mark	No.	Description	Part No.
	46	Bracket	See Contrast table(2)
	47	Insulator	CNM4684
	48	Connector(CN353)	See Contrast table(2)
	49	Spacer	CNM5305
	50	Spacer	CNM5306
	51	Heat Sink	CNR1451
	52	Holder	CNV1906
	53	FM/AM Tuner Unit	CWE1416
	54	Holder	CNC6554
	55	Case Assy	CXA7194
	56	Chassis Unit	See Contrast table(2)
	57	Panel Assy	CXA9951
	58	Screw	BPZ20P060FMC
	59	Screw	CBA1082
	60	Screw	CBA1176
	61	Washer	CBF1001
	62	Spring	CBH1528
	63	Spring	CBH1660
	64	Spring	CBH1696
	65	Connector	CKS2780
	66	Roller	CLA3023
	67	Arm	CNC7130
	68	Sheet	CNM5142
	69	P.C.Board	CNP3847
	70	Holder	CNV2141
	71	Cover	CNV3965
	72	Holder	CNV4979
	73	Damper Unit	CXA7159
	74	Holder Unit	CXA7794
	75	Panel Unit	CXA9803
	76	Cord Assy	CDE5372
	77	Holder Unit	CXA9806
	78	Holder Unit	CXA9807
	79	Screw	IMS20P040FZK
	80	Detach Grille Assy	See Contrast table(2)
	81	Screw	BPZ20P080FZK
	82	Button(○)	CAC4971
	83	Button(F A)	CAC4972
	84	Button(▲,▼)	CAC4973
	85	Button(◄,►)	CAC4974
	86	Button(B A)	CAC4975
	87	Button(- +)	CAC4976
	88	Button(SOURCE)	CAC4977
	89	Button(1-6)	CAC5379
	90	Button(D)	CAC4979

Mark No.	Description	Part No.
91	Button(P)	CAC4980
92	Button	CAC4981
93	Spring	CBH1844
94	Keyboard Unit	See Contrast table(2)
95	LCD	See Contrast table(2)
96	Cord	CDE4387
97	EL(CN1902)	CEL1493
98	Connector(CN1901)	CKS2733
99	Holder	CNC6920
100	Spacer	CNM5449
101	Double Side Seal	CNM5301
102	Connector	CNV4817
103	Grille Unit	See Contrast table(2)
104	Cover Unit	CXA9802
105	Remote Control Assy	See Contrast table(2)

Mark No.	Description	Part No.
106	Battery Cover	CNS4406
107	CD Mecanism Module(S7)	CXK5001
108	Screw	BSZ26P050FMC
109	Cord	MDE9009
110	Holder	MNC9001
111	Holder	MNC9002
112	Insulator	MNM9001
113	Inverter Unit	MWM9001
114	Plug(CN101)	CKS1224
115	IC(IC171)	TDA7386
116	Lamp(IL801)	CEL1263
117	Transistor(Q941,992)	2SD2396
118	Connector(CN651)	CKS3583

(2) CONTRAST TABLE

DEH-P835R/EW and DEH-P735R/EW have the same construction except for the following:

		Part No.	
Mark No.	Symbol & Description	DEH-P835R/EW	DEH-P735R/EW
17	Cord(4P)	Not used	CDE5244
18	Cap	CNV2680(4)	Not used
28	Tuner Amp Unit	CWM5048	CWM5053
30	Cord	CDE5247	Not used
41	Connector(CN353)	CKS3606	Not used
46	Bracket	CNC6952	CNC7131
48	Connector(CN353)	Not used	CKS3602
56	Chassis Unit	CXA9808	CXA9812
80	Detach Grille Assy	CXA9967	CXA9973
94	Keyboard Unit	CWM5062	CWM5416
95	LCD	CAW1403	CAW1404
103	Grille Unit	CXA9789	CXA9799
105	Remote Control Assy	CXB1159	CXB1160

2.3 CD MECHANISM MODULE

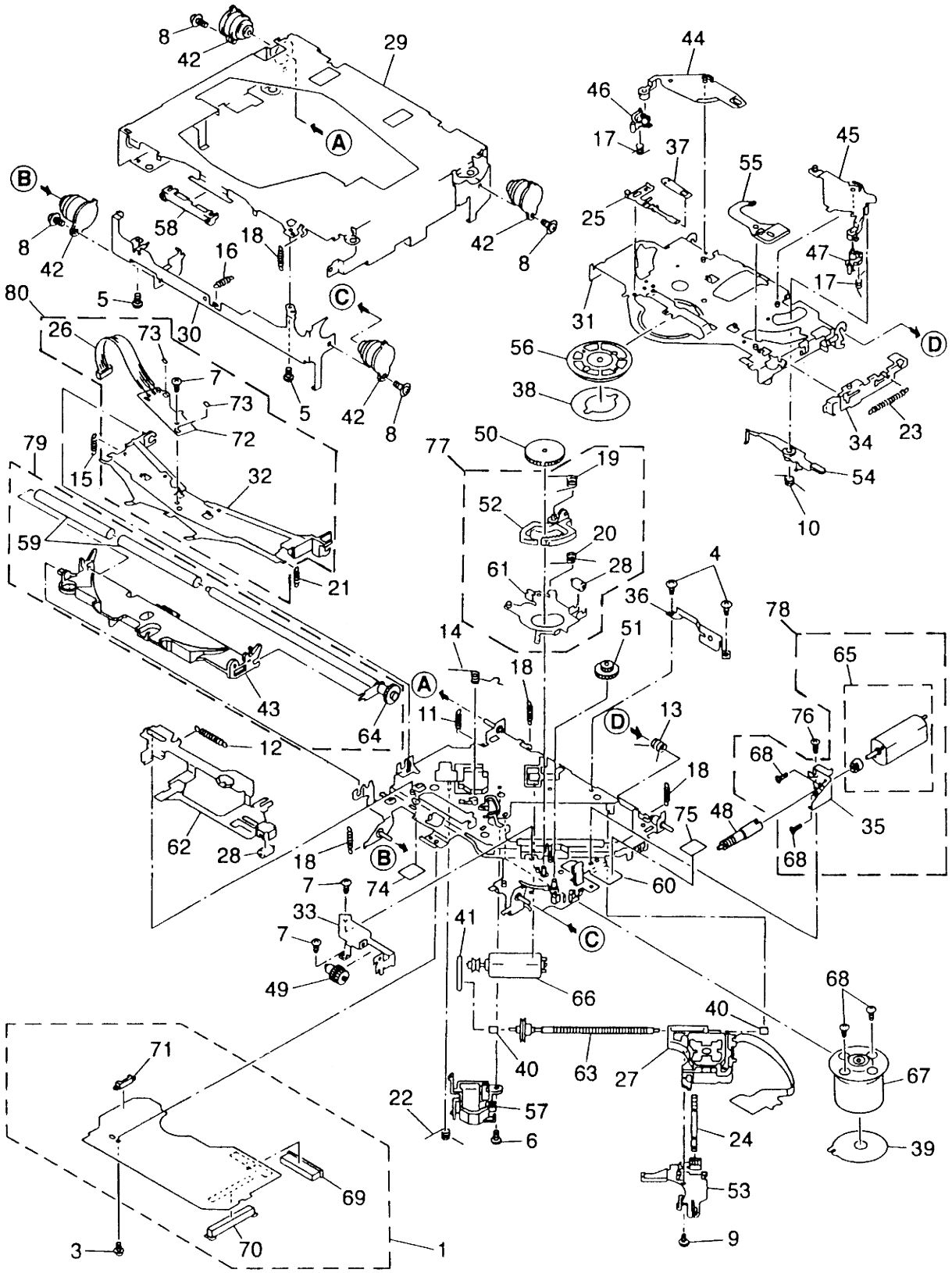


Fig. 3

● CD MECHANISM MODULE

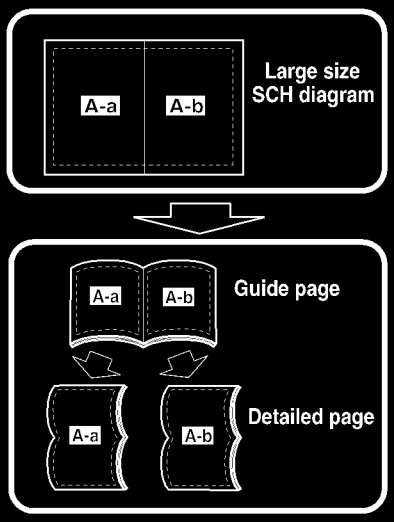
● PARTS LIST

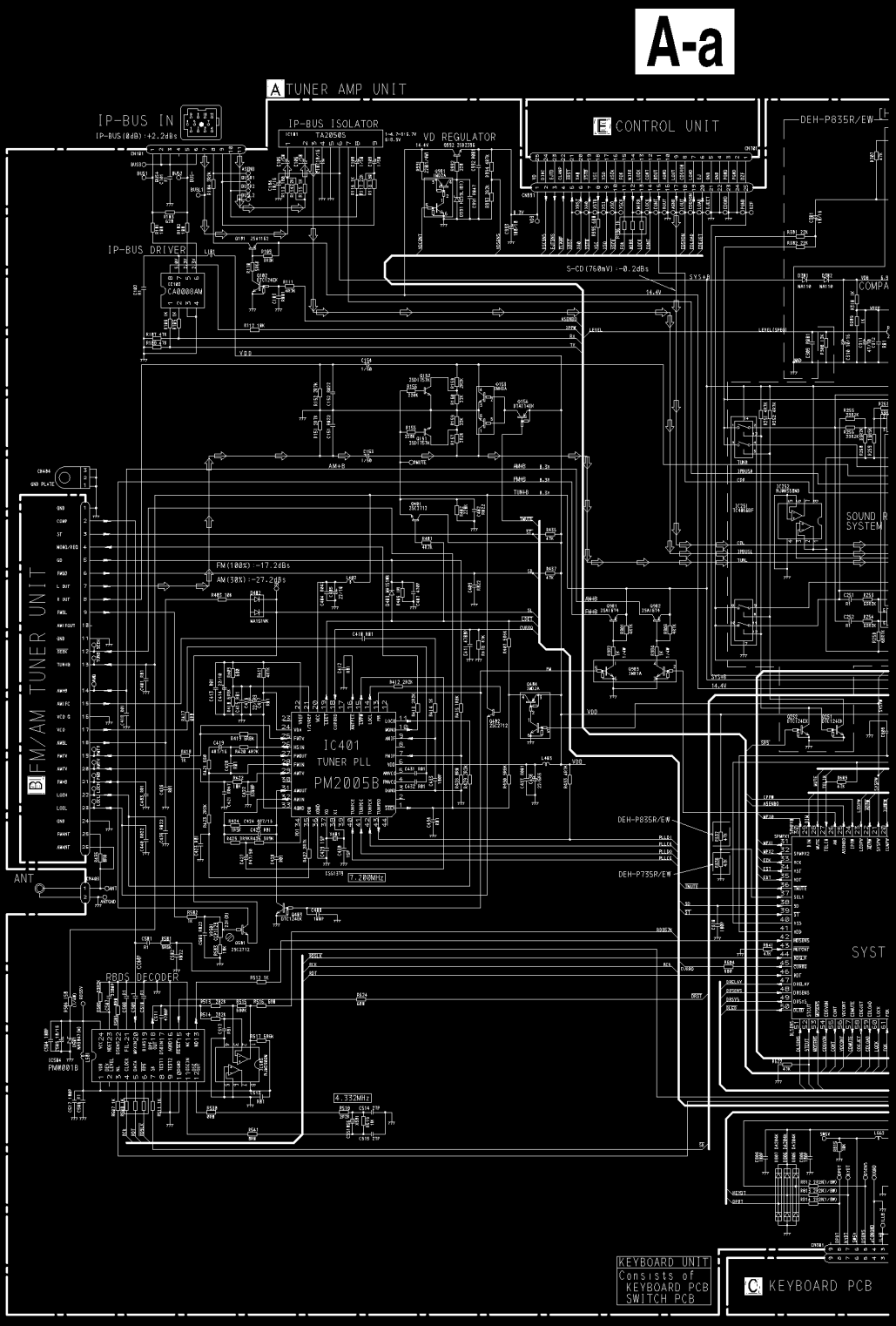
Mark	No.	Description	Part No.
	1	Control Unit	CWX1889
	2	•••••	
	3	Screw	IMS26P035FMC
	4	Screw	BMZ20P040FMC
	5	Screw	BSZ20P040FMC
	6	Screw(M2×3)	CBA1077
	7	Screw(M2×2)	CBA1250
	8	Screw(M2×5)	CBA1296
	9	Screw(M2×3.85)	CBA1362
	10	Spring	CBH1945
	11	Spring	CBH1724
	12	Spring	CBH1939
	13	Spring	CBH1729
	14	Spring	CBH1730
	15	Spring	CBH1731
	16	Spring	CBH1732
	17	Spring	CBH1736
	18	Spring	CBH1745
	19	Spring	CBH1832
	20	Spring	CBH1833
	21	Spring	CBH1848
	22	Spring	CBH1849
	23	Spring	CBH1863
	24	Spring	CBL1214
	25	Spring	CBL1269
	26	Connector(CN1)	CDE4576
	27	Pickup Unit(Service)	CXX1230
	28	Roller	CLA2627
	29	Frame	CNC5796
	30	Frame	CNC5797
	31	Arm	CNC5799
	32	Arm	CNC5801
	33	Bracket	CNC5871
	34	Lever	CNC6054
	35	Bracket	CNC6056
*	36	Bracket	CNC6376
	37	Spacer	CNM3315
	38	Sheet	CNM4849
	39	PCB	CNP4230
	40	Bearing	CNR1415
	41	Belt	CNT1071
	42	Damper	CNV3974
	43	Arm	CNV4120
	44	Arm	CNV4122
	45	Arm	CNV4123
	46	Arm	CNV4124
	47	Arm	CNV4125
	48	Gear	CNV4128
	49	Gear	CNV4129
	50	Gear	CNV4130
	51	Gear	CNV4131
	52	Arm	CNV4136
	53	Holder	CNV4663
	54	Arm	CNV4138
	55	Arm	CNV4139
	56	Clamper	CNV4140
	57	Holder	CNV4664
	58	Guide	CNV4484
	59	Roller	CNV4509
	60	Chassis Unit	CXA9515
	61	Arm Unit	CXA8565
	62	Lever Unit	CXA9300
	63	Screw Unit	CXA8699
	64	Gear Unit	CXA8701
	65	Load Motor Unit(M3)	CXA8702
	66	CRG Motor Unit(M2)	CXA8986
	67	Motor Unit(M1)	CXA8912
	68	Screw	JFZ20P025FMC
	69	Connector(CN101)	CKS1953
	70	Connector(CN701)	CKS2774
	71	Connector(CN801)	CKS2196
*	72	Gathering PCB	CNX2445
	73	Photo-transistor(Q1, 2)	CPT-230S-X
	74	Sheet	CNM4873
	75	Cushion	CNM3917
	76	Screw	BMZ20P025FMC
	77	ELBO Arm Assy	CXA8889
	78	Load Motor Assy	CXA8891
	79	LO Arm Assy	CXA8892
	80	Guide Arm Assy	CXA8893

3. SCHEMATIC DIAGRAM

3.1 OVERALL CONNECTION DIAGRAM(GUIDE PAGE)

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".





A-b

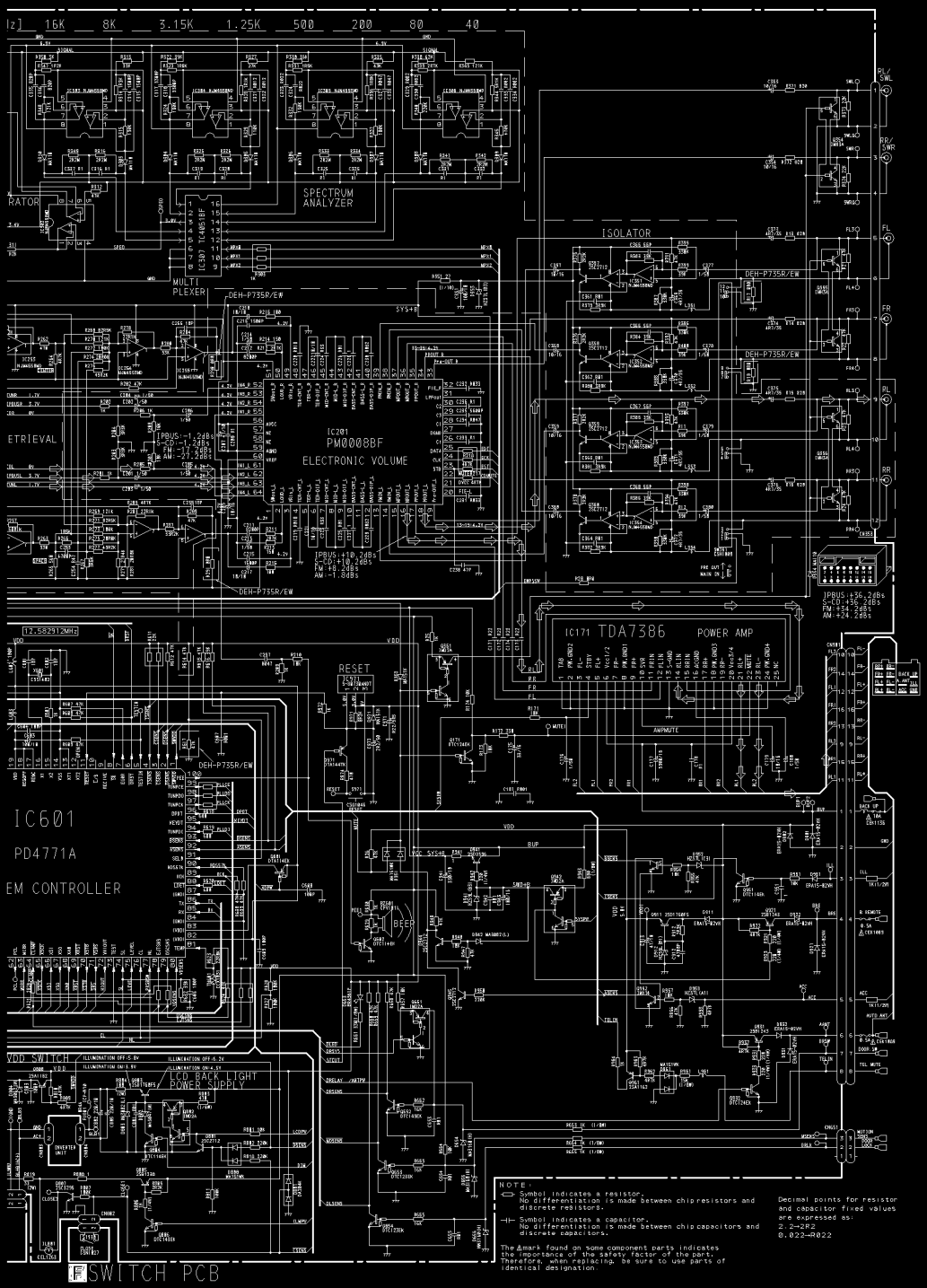
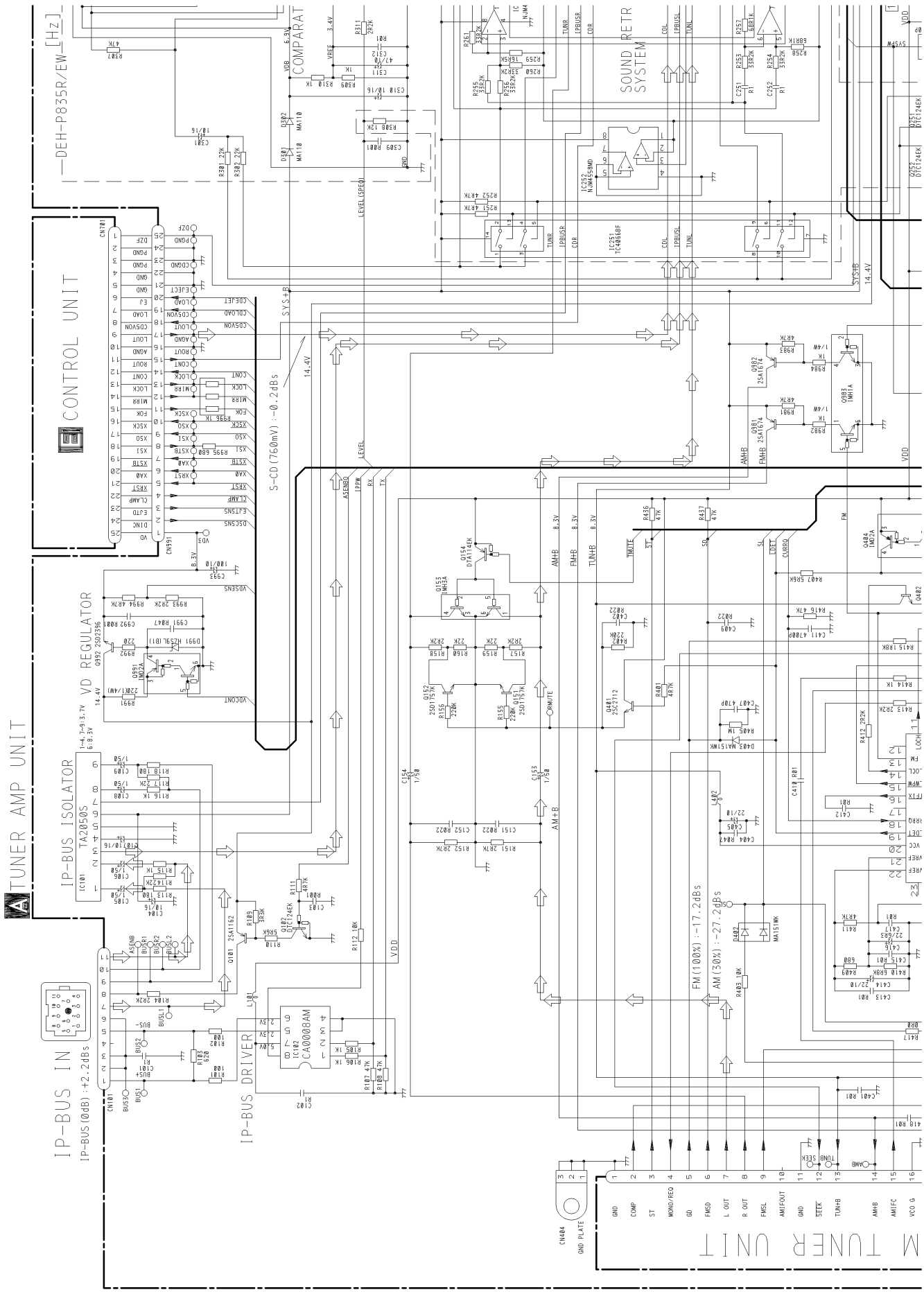
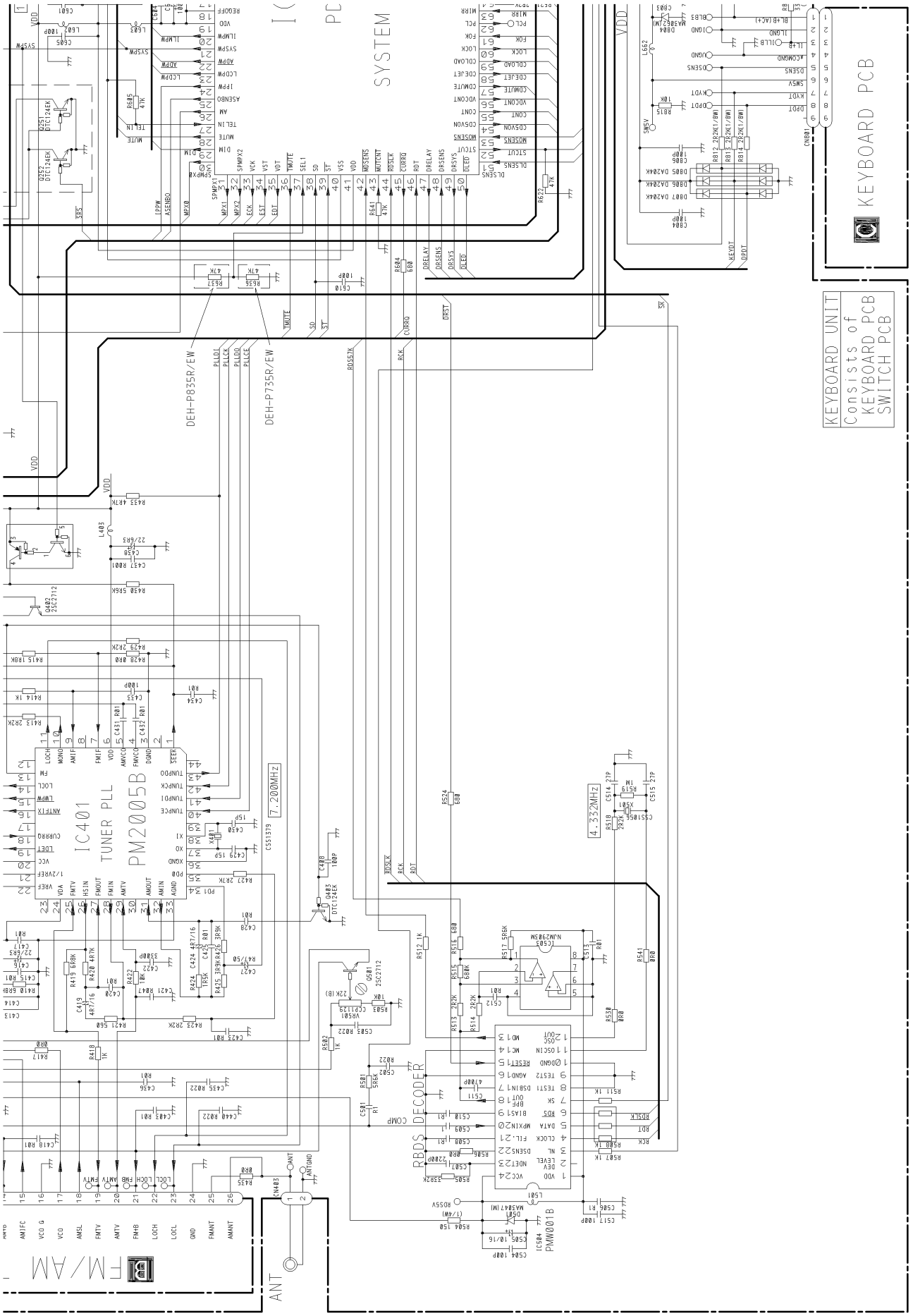

SPECTRUM ANALYZER
MULTI PLEXER
DEH-P735R/EW
IC201 PM0008BF ELECTRONIC VOLUME
ISOLATOR
IC171 TDA7386 POWER AMP
IC601 PD4771A EM CONTROLLER
RESET
VDD SWITCH
LCD BACK LIGHT POWER SUPPLY
SWITCH PCB
NOTE:
Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.
The Δmark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022

Fig. 4

A-a A-b


TUNER AMP UNIT
CONTROL UNIT
IP-BUS ISOLATOR
IP-BUS IN
IP-BUS DRIVER
VD REGULATOR
SOUND RETR SYSTEM
COMPARAT
S-CD (760mV) : -0.2dBs
IP-BUS(0dB) : +2.2dBs
FM(100%) : -17.2dBs
AM(30%) : -27.2dBs
M TUNER UNIT
GND
COMP
ST
MONO/REQ
QD
FMSD
L OUT
R OUT
FMSL
AMIFOUT
SEEK
TUN+B
AM+B
AMIFC
VCO G
GND PLATE

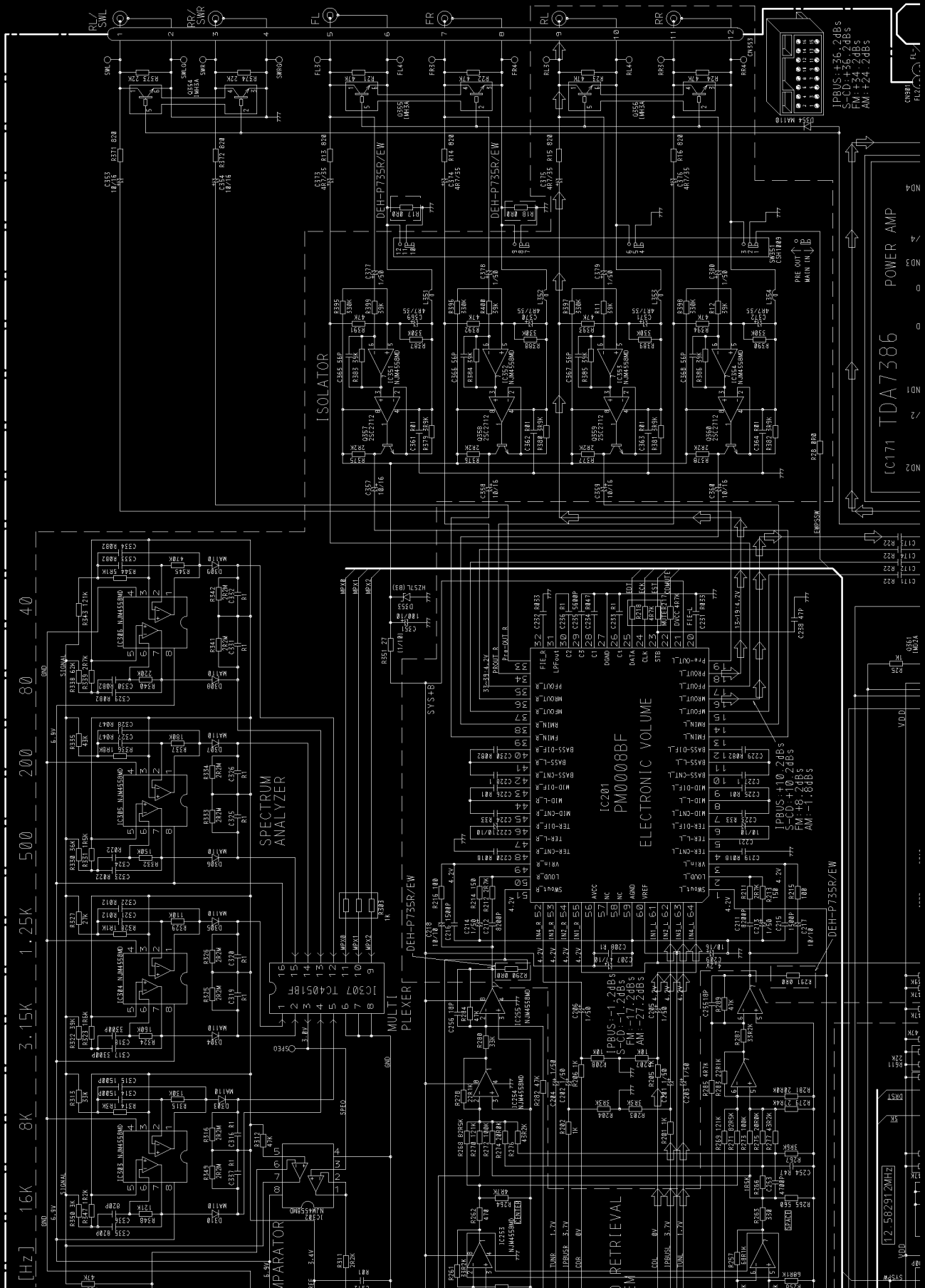
A-a

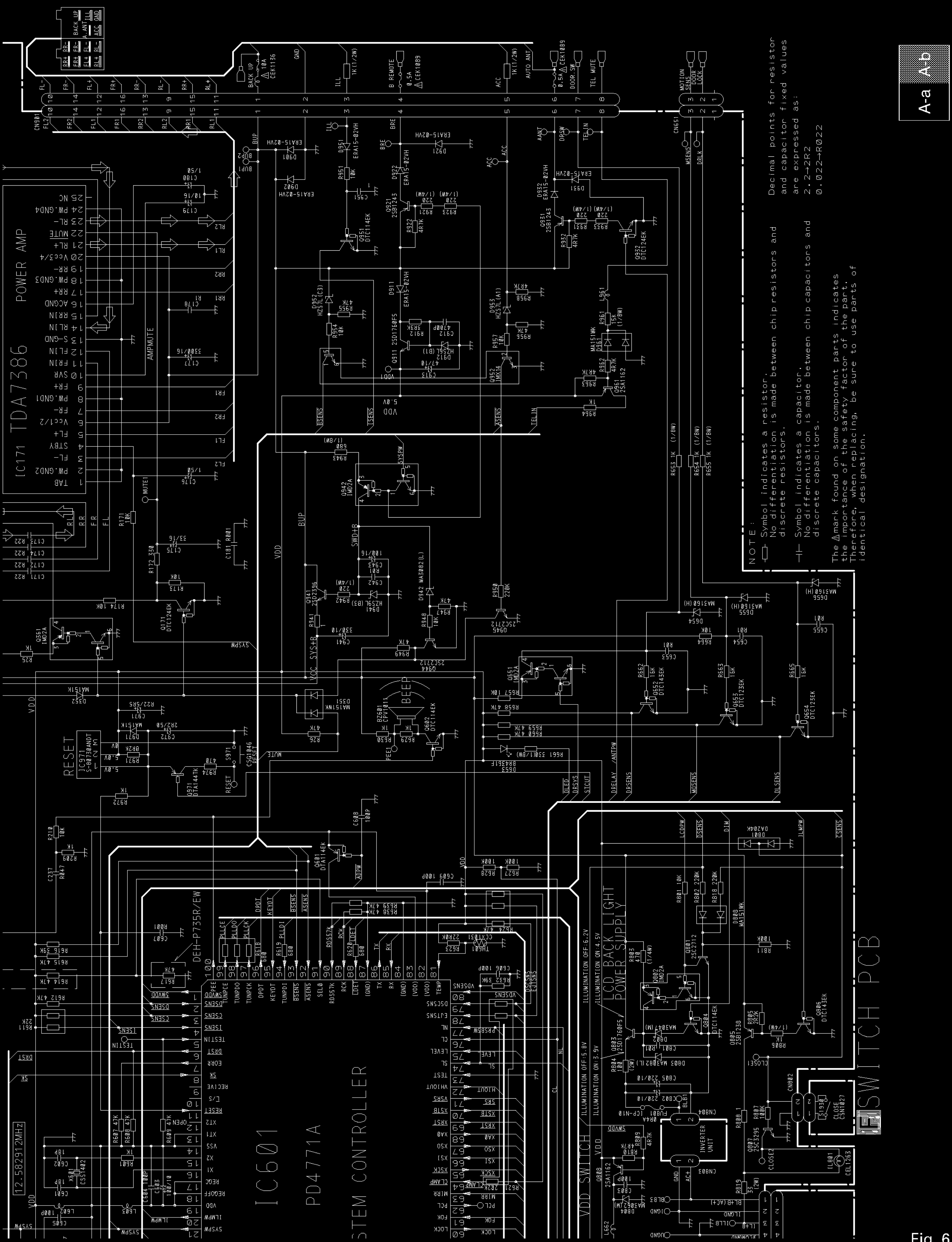

I²C BUS SYSTEM
KEYBOARD PCB
KEYBOARD UNIT
Consists of
KEYBOARD PCB
SWITCH PCB
DEH-P835R/EW
DEH-P735R/EW
IC401
TUNER PLL
PM2005B
7.200MHz
4.332MHz
RBDS DECODER
FM/AM
ANT

A-a A-b

Fig. 5

A-a A-b


RL/SWL
RR/SWR
FL
FR
RL
RR
DEH-P735R/EW
ISOLATOR
IC171 TDA7386 POWER AMP
IC201 PM0008BF ELECTRONIC VOLUME
SPECTRUM ANALYZER
MULTI PLEXER
IC307 TC4051BF
MPARATOR
RETRIEVAL
IPBUS:+36.2dBs S-CD:+36.2dBs FM:+34.2dBs AM:+24.2dBs
IPBUS:+10.2dBs S-CD:+10.2dBs FM:+8.2dBs AM:-1.8dBs
IPBUS:-1.2dBs S-CD:-1.2dBs FM:-17.2dBs AM:-27.2dBs
12.582912MHz
SYS+8
VDD



NOTE:
Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
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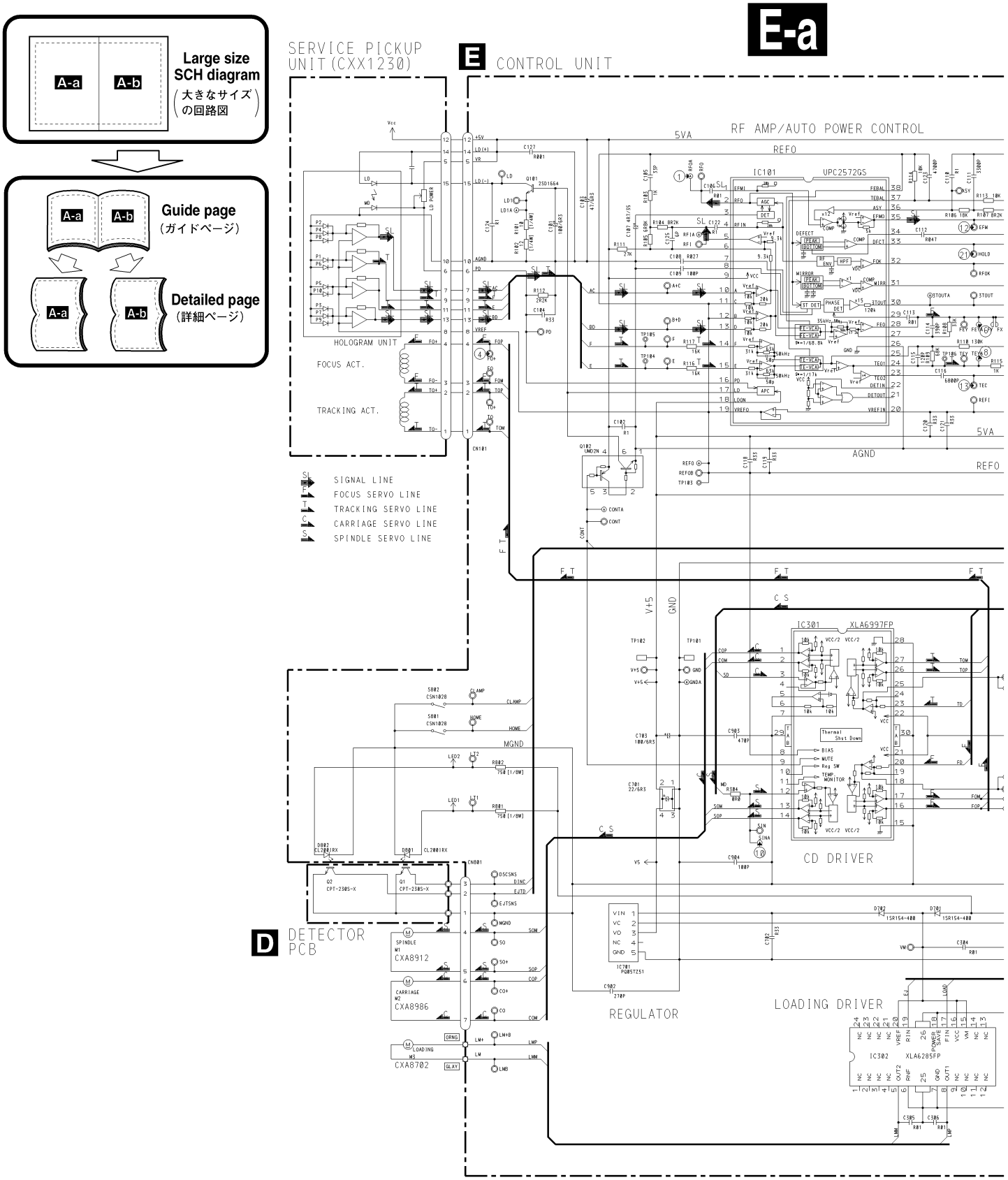
The △mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022

Fig. 6

F A-b

3.2 CD MECHANISM MODULE(GUIDE PAGE)



E-b

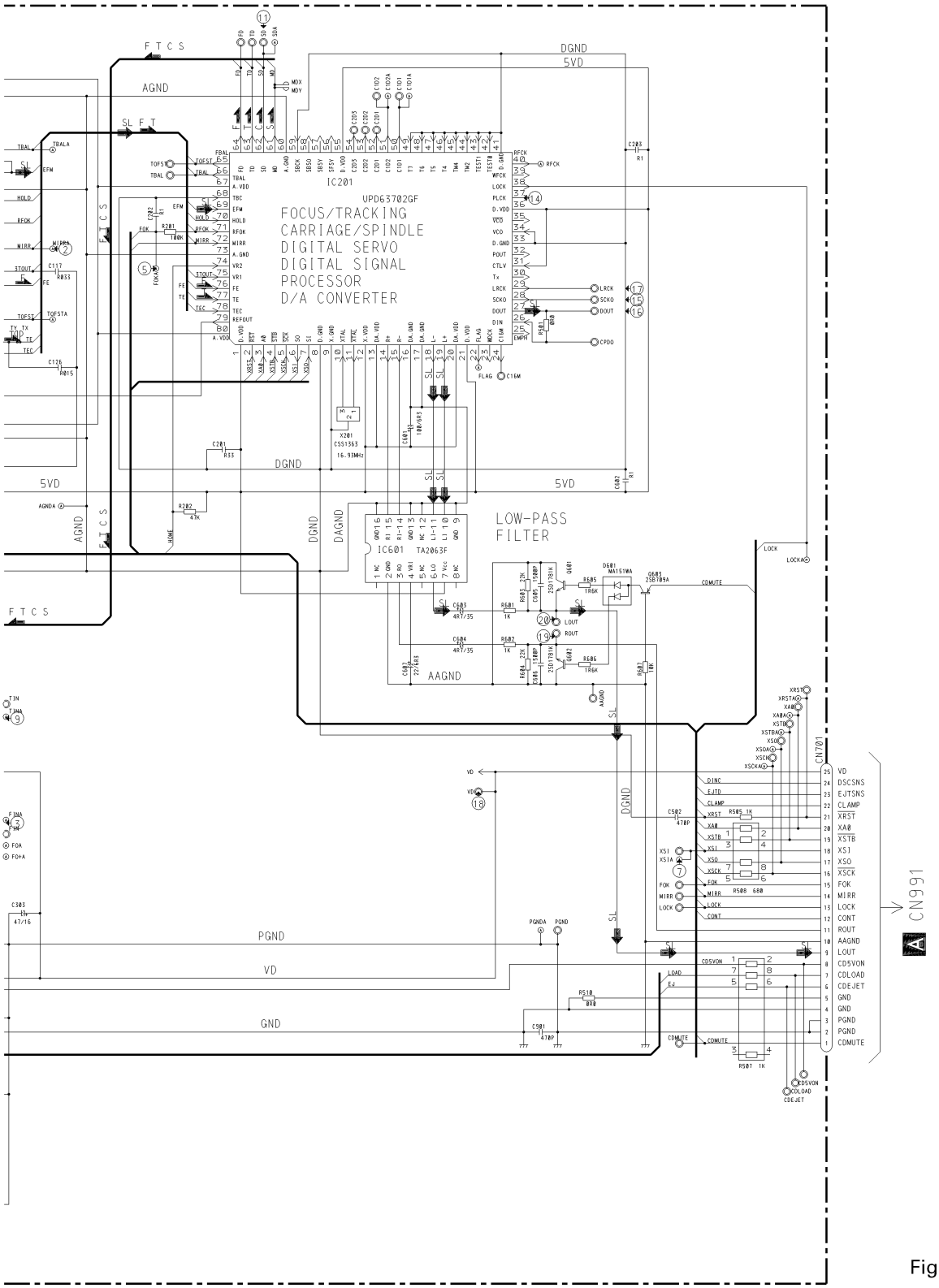
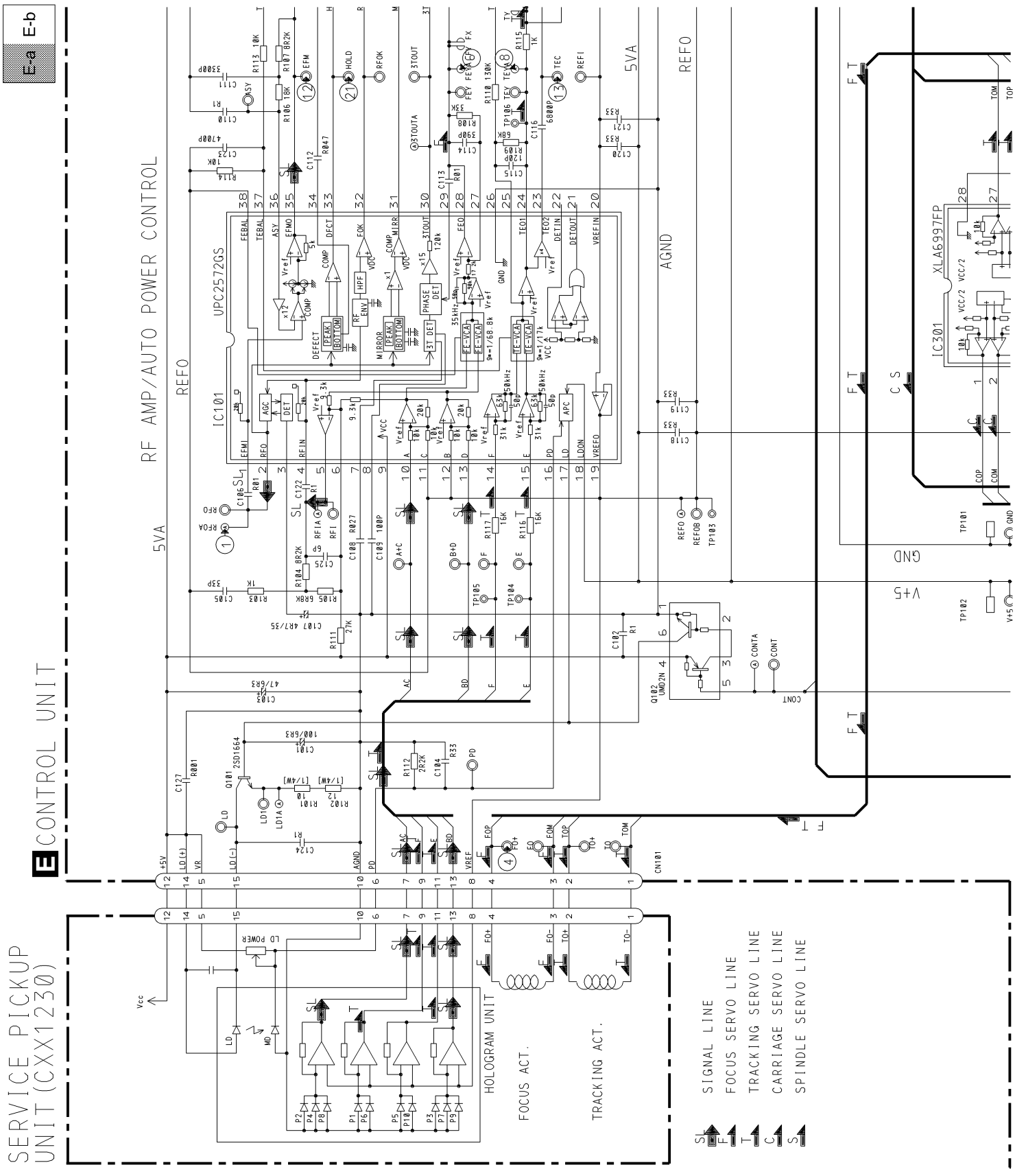

IC201
UPD63702GF
FOCUS/TRACKING
CARRIAGE/SPINDLE
DIGITAL SERVO
DIGITAL SIGNAL
PROCESSOR
D/A CONVERTER
IC601 TA2063F
LOW-PASS
FILTER
X201
CSS1363
16.93MHz
CN701
CN991
DGND
5VD
AGND
AAGND
PGND
VD
GND

Fig. 7


E-a E-b
E CONTROL UNIT
RF AMP/AUTO POWER CONTROL
IC101
UPC2572GS
XLA6997FP
IC301
AGND
REFO
5VA
GND
V+5
CONT
SERVICE PICKUP UNIT (CXX1230)
HOLOGRAM UNIT
FOCUS ACT.
TRACKING ACT.
LD POWER
SIGNAL LINE
FOCUS SERVO LINE
TRACKING SERVO LINE
CARRIAGE SERVO LINE
SPINDLE SERVO LINE

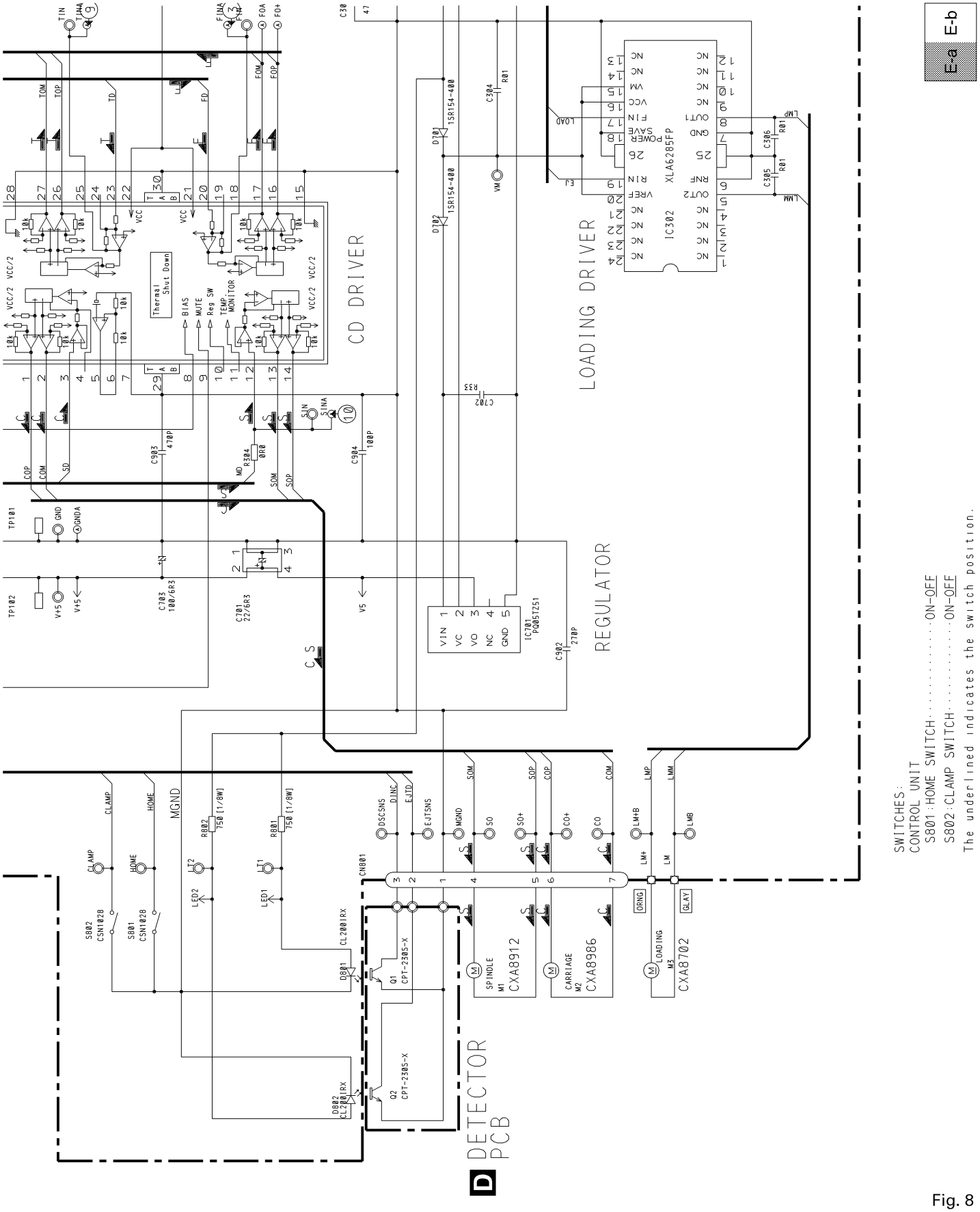
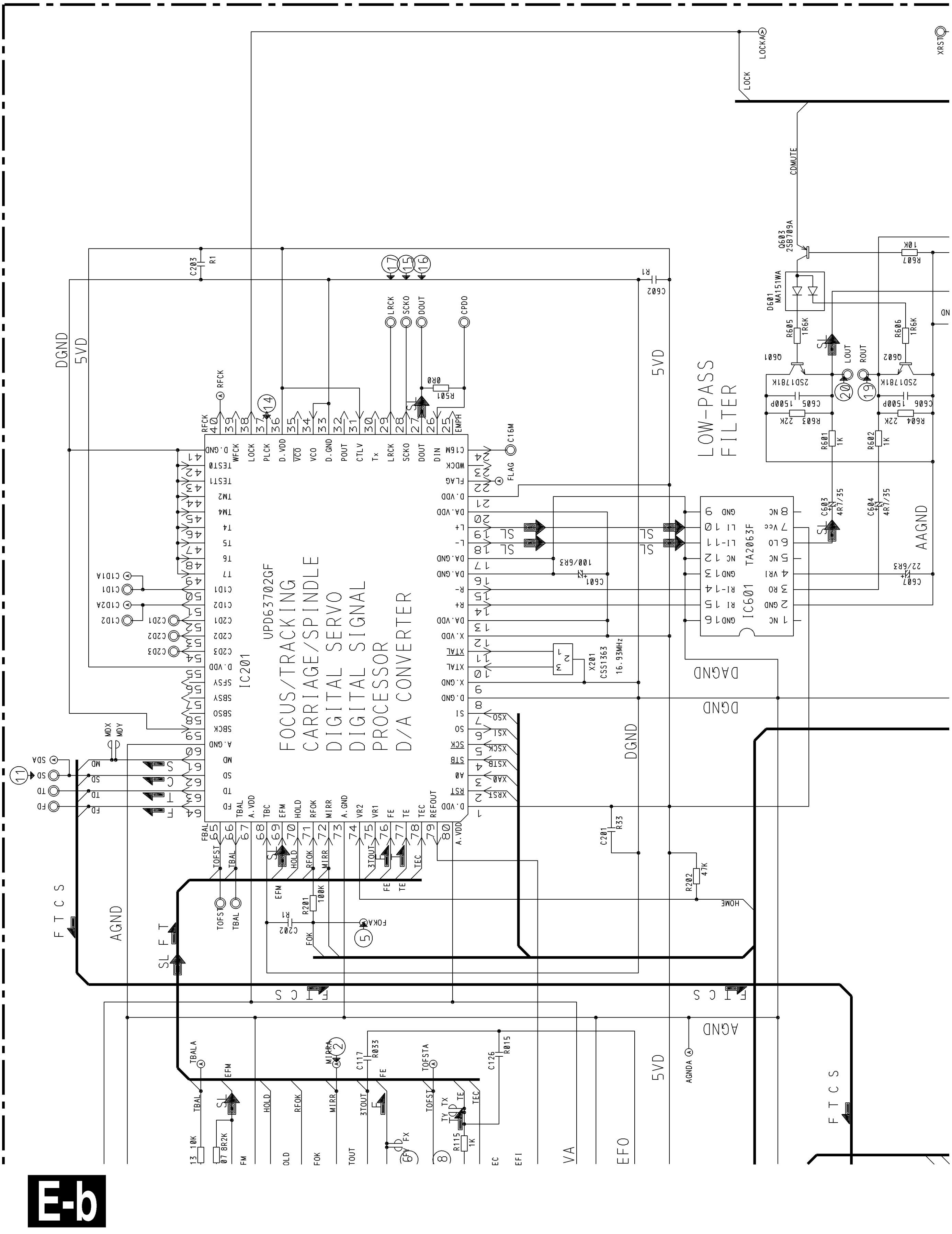

CD DRIVER
LOADING DRIVER
REGULATOR
DETECTOR PCB
SPINDLE M1 CXA8912
CARRIAGE M2 CXA8986
LOADING M3 CXA8702
IC302 XLA6285FP
IC701 PQ05TZ51
CN801
S802 CSN1028
S801 CSN1028
Thermal Shut Down
SWITCHES:
CONTROL UNIT
S801:HOME SWITCH·····ON-OFF
S802:CLAMP SWITCH·····ON-OFF
The underlined indicates the switch position.

Fig. 8



FOCUS/TRACKING
CARRIAGE/SPINDLE
DIGITAL SERVO
DIGITAL SIGNAL
PROCESSOR
D/A CONVERTER
UPD63702GF
IC201
LOW-PASS
FILTER
IC601
TA2063F
DGND
5VD
AGND
DAGND
AAGND

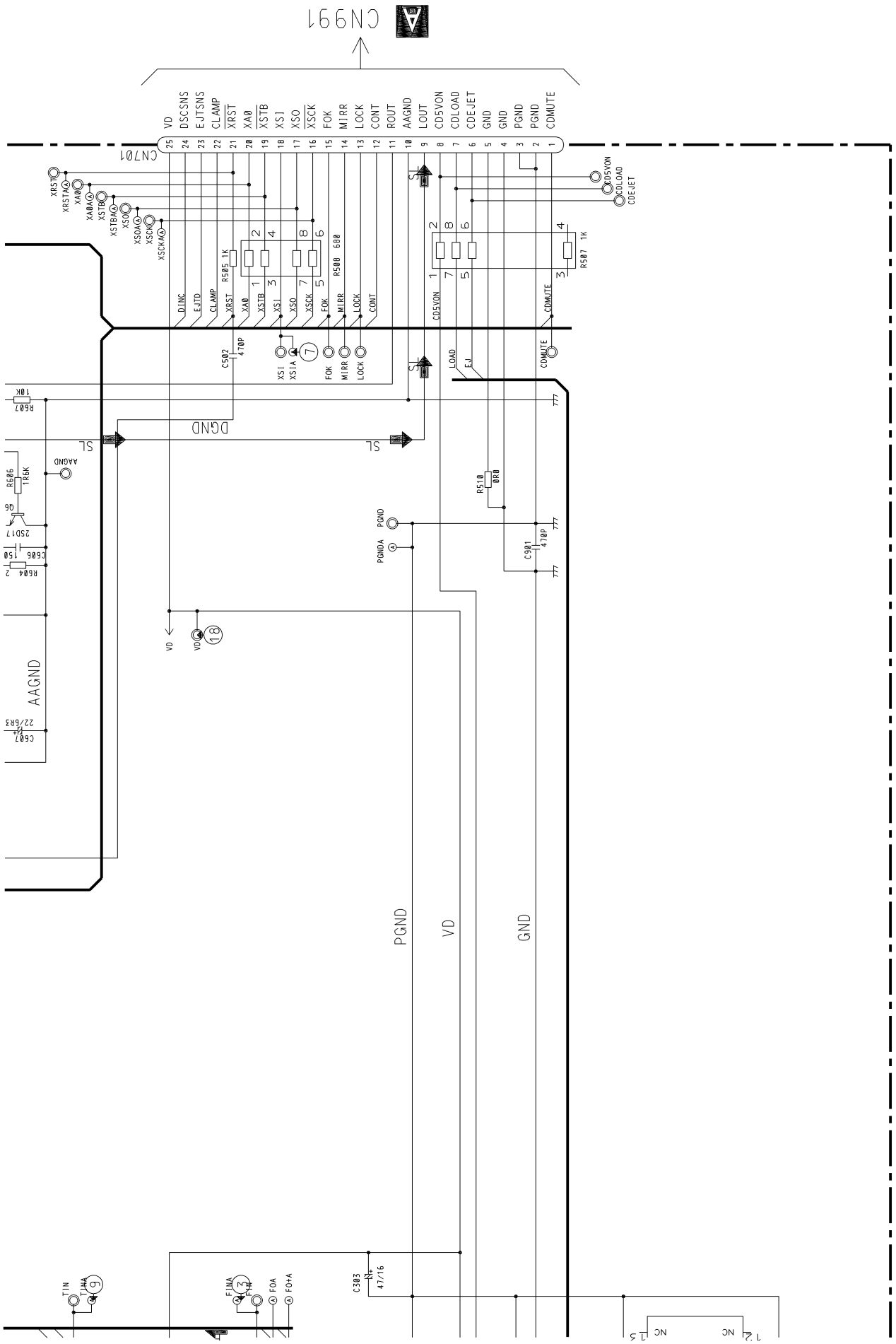
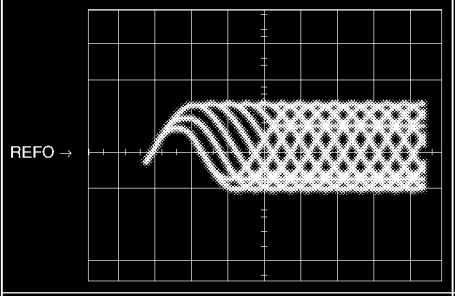

CN991
CN701
VD
DSCSNS
EJTSNS
CLAMP
XRST
XA0
XSTB
XSI
XSO
XSCK
FOK
MIRR
LOCK
CONT
ROUT
AAGND
LOUT
CD5VON
CDLOAD
CDEJET
GND
GND
PGND
PGND
CDMUTE
DGND
AAGND
PGND
VD
GND
R607 10K
R606 1R6K
Q6 2SD17
C606 150
R604 2
C607 22/6R3
R502 470P
R505 1K
R508 680
R510 0R0
C901 470P
R507 1K
C303 47/16

Fig. 9

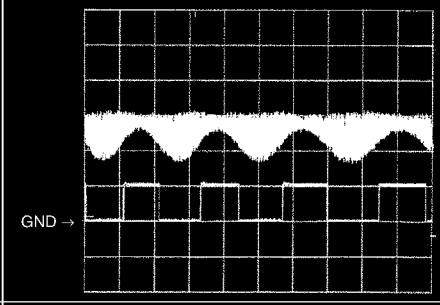
Note:1. The encircled numbers denote measuring pointes in the circuit diagram.
2. Reference voltage
REFO:2.5V

● Waveforms

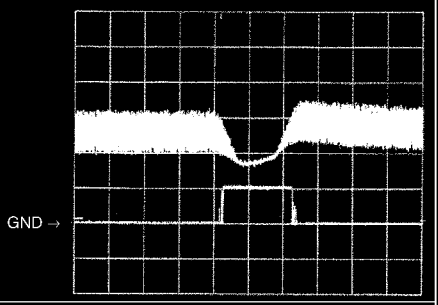
① RFO 0.5V/div. 0.5µs/div.
Normal mode: play



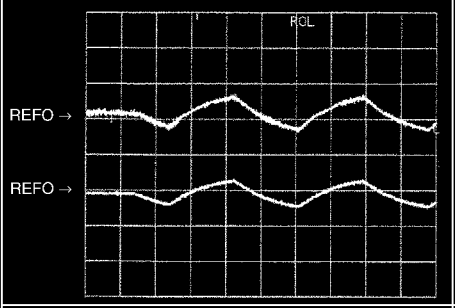
① CH1: RFO 1V/div. 0.5ms/div.
② CH2: MIRR 5V/div.
Test mode: Tracking open



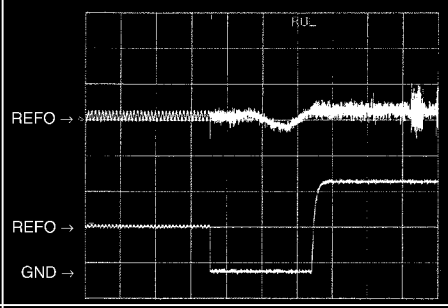
① CH1: RFO 1V/div. 0.5ms/div.
② CH2: MIRR 5V/div.
Nomal mode: The defect part passes



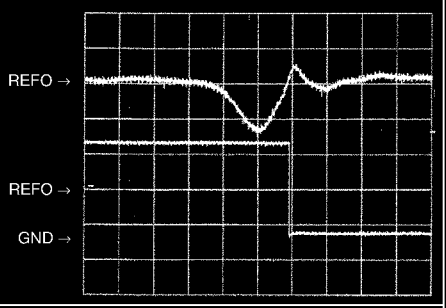
③ CH1: FIN 0.5V/div. 0.2s/div.
④ CH2: FO+ 2V/div.
Test mode: No disc, Focus close



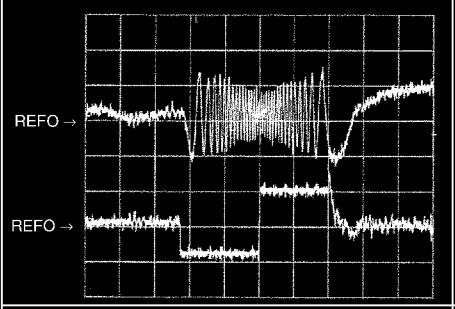
③ CH1: FIN 0.5V/div. 0.2s/div.
⑤ CH2: FOK 2V/div.
Normal mode: Focus close



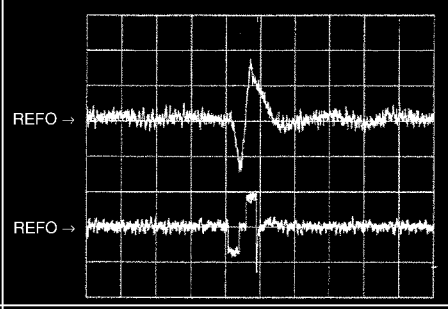
⑥ CH1: FEY 0.5V/div. 1ms/div.
⑦ CH2: XSI 2V/div.
Normal mode: Focus close



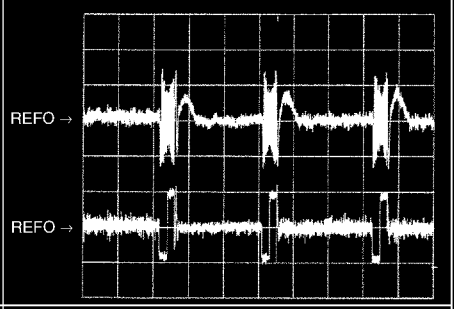
⑧ CH1: TEY 0.5V/div. 0.5ms/div.
⑨ CH2: TIN 0.5V/div.
Test mode: 32 tracks jump (FWD)



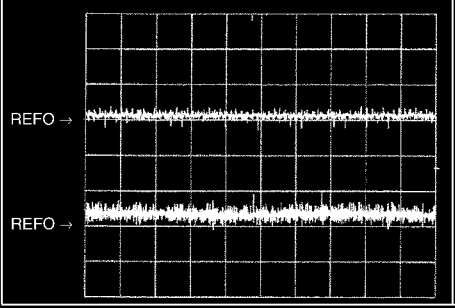
⑧ CH1: TEY 0.5V/div. 0.5ms/div.
⑨ CH2: TIN 0.5V/div.
Test mode: Single jump (FWD)



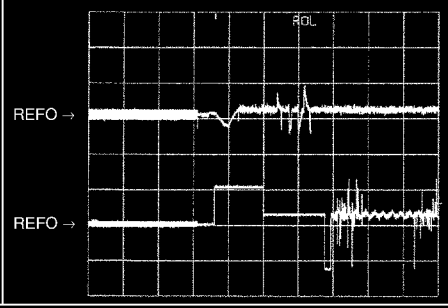
⑧ CH1: TEY 0.5V/div. 5ms/div.
⑨ CH2: TIN 0.5V/div.
Test mode: 100 tracks jump (FWD)



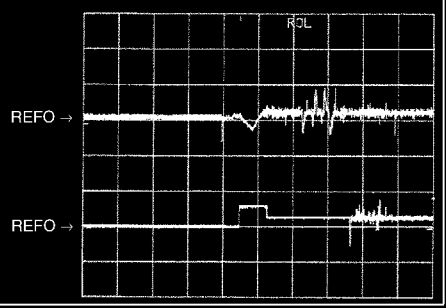
⑥ CH1: FEY 0.1V/div. 20ms/div.
③ CH2: FIN 0.2V/div.
Normal mode: Play



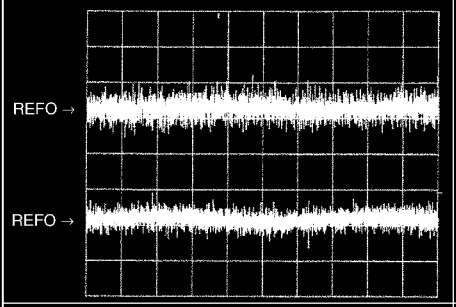
③ CH1: FIN 0.5V/div. 0.5s/div.
⑩ CH2: SIN 1V/div.
Normal mode: Focus close (12cm)



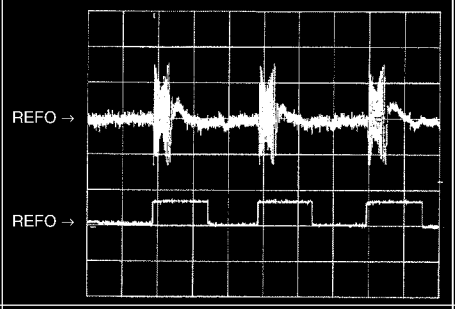
③ CH1: FIN 0.5V/div. 0.5s/div.
⑩ CH2: SIN 1V/div.
Normal mode: Focus close (8cm)



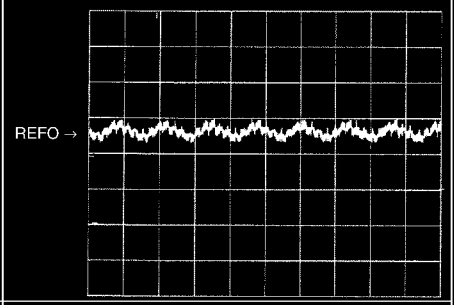
⑧ CH1: TEY 0.2V/div.
⑨ CH2: TIN 0.2V/div. 20ms/div.
Normal mode: play



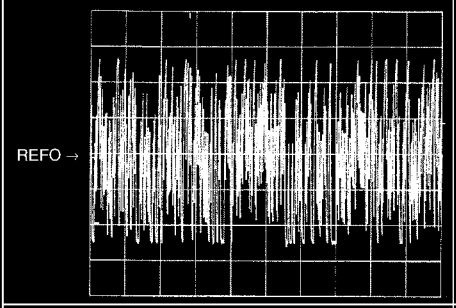
⑧ CH1: TEY 0.5V/div.
⑪ CH2: SD 0.5V/div. 5ms/div.



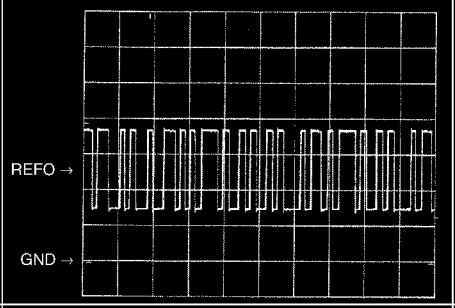
⑩ SIN 0.5V/div. 0.1s/div.
Normal mode: Play (12cm)



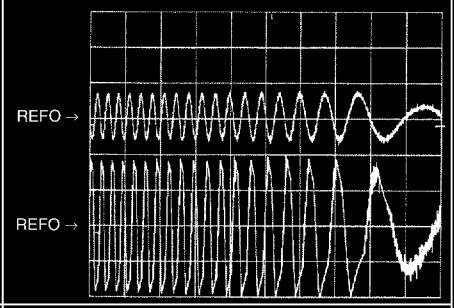
⑩ SIN 0.5V/div. 10ms/div.
Long Search (12cm)



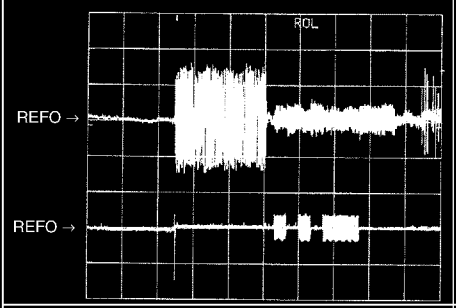
⑫ EFM 1V/div. 5µs/div.
Play



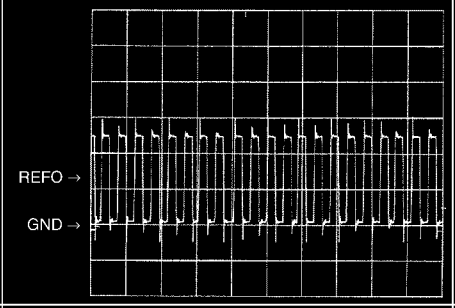
⑧ CH1: TEY 1V/div.
⑬ CH2: TEC 1V/div. 2ms/div.
Test mode: Focus close
Tracking open



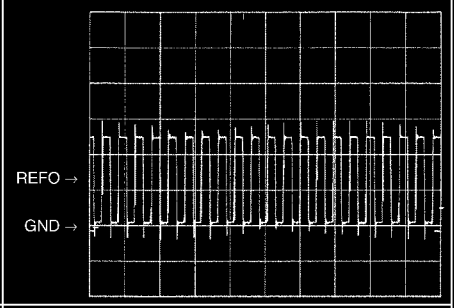
⑧ CH1: TEY 0.5V/div.
⑥ CH2: FEY 0.5V/div. 0.2s/div.
Normal mode: AGC after focus close



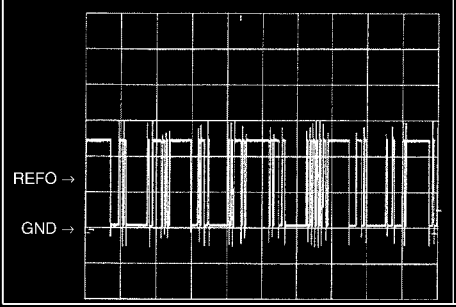
⑭ PLCK 2V/div. 0.5µs/div.
Play



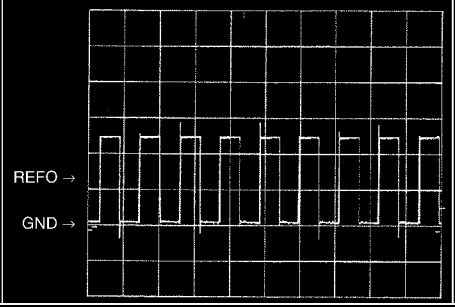
⑮ SCKO 2V/div. 1µs/div.
Play



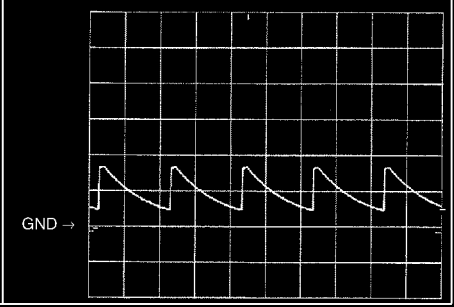
⑯ Dout 2V/div. 10µs/div.
Play



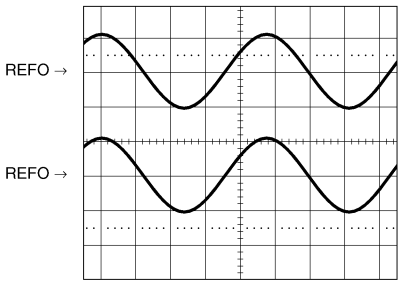
⑰ LRCK 2V/div. 20µs/div.



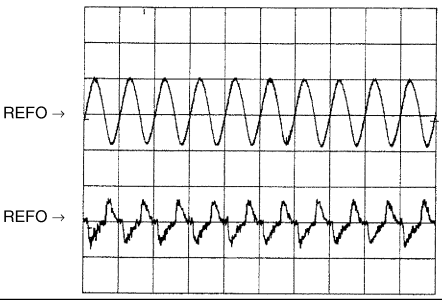
⑱ VD 5V/div. 50ms/div.
Normal mode: No disc



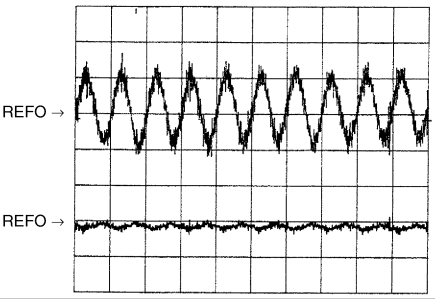
⑲ CH1: R OUT 1V/div.
⑳ CH2: L OUT 1V/div.
0.2ms/div.
Normal mode: Play (1kHz 0dB)



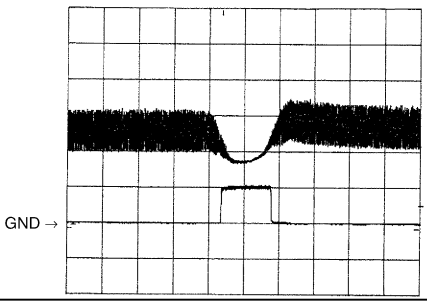
⑥ CH1: FEY 0.2V/div.
③ CH2: FIN 0.5V/div.
1ms/div.
Normal mode: During AGC



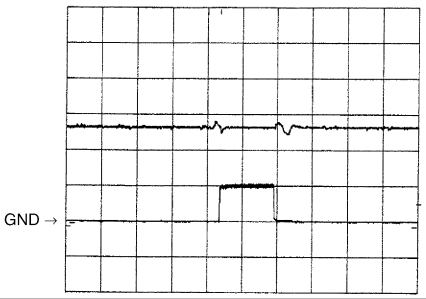
⑧ CH1: TEY 0.2V/div.
⑨ CH2: TIN 0.5V/div.
1ms/div.



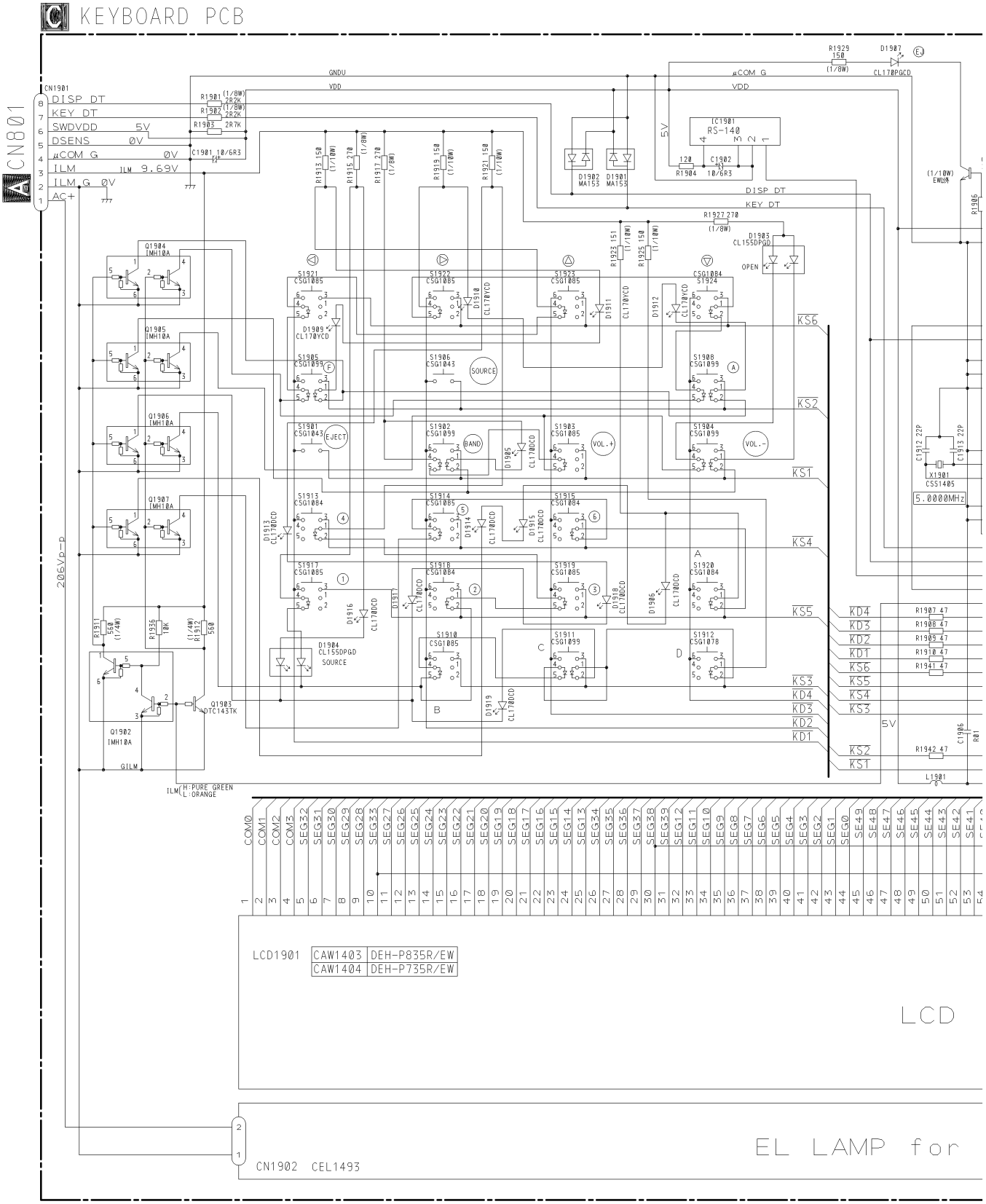
① CH1: RFO 1V/div.
㉑ CH2: HOLD 5V/div.
0.5ms/div.
Normal mode: The defect part passes 800µm



③ CH1: FIN 1V/div.
㉑ CH2: HOLD 5V/div.
0.5ms/div.
Normal mode: The defect part passes 800µm



3.3 KEYBOARD PCB



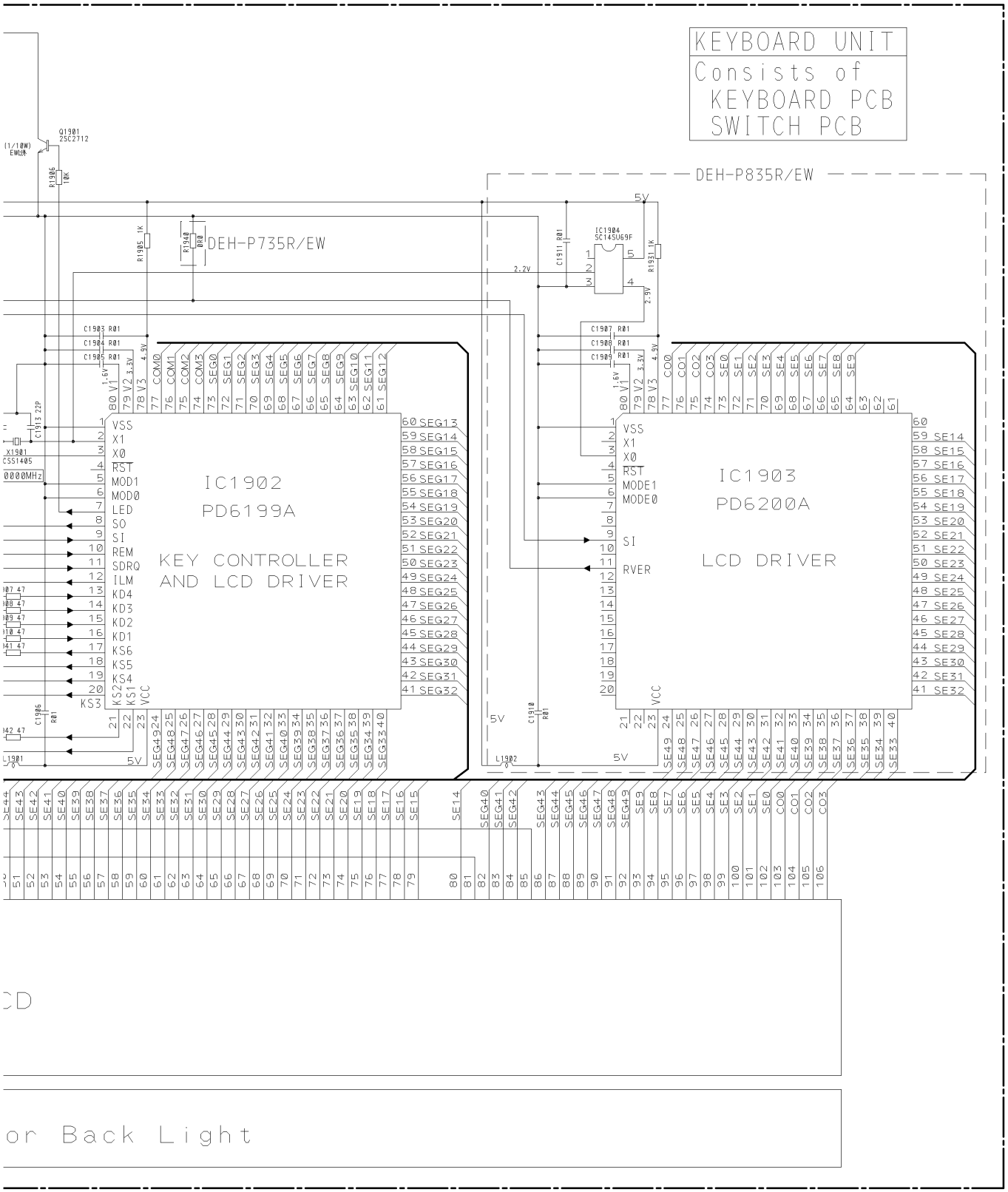
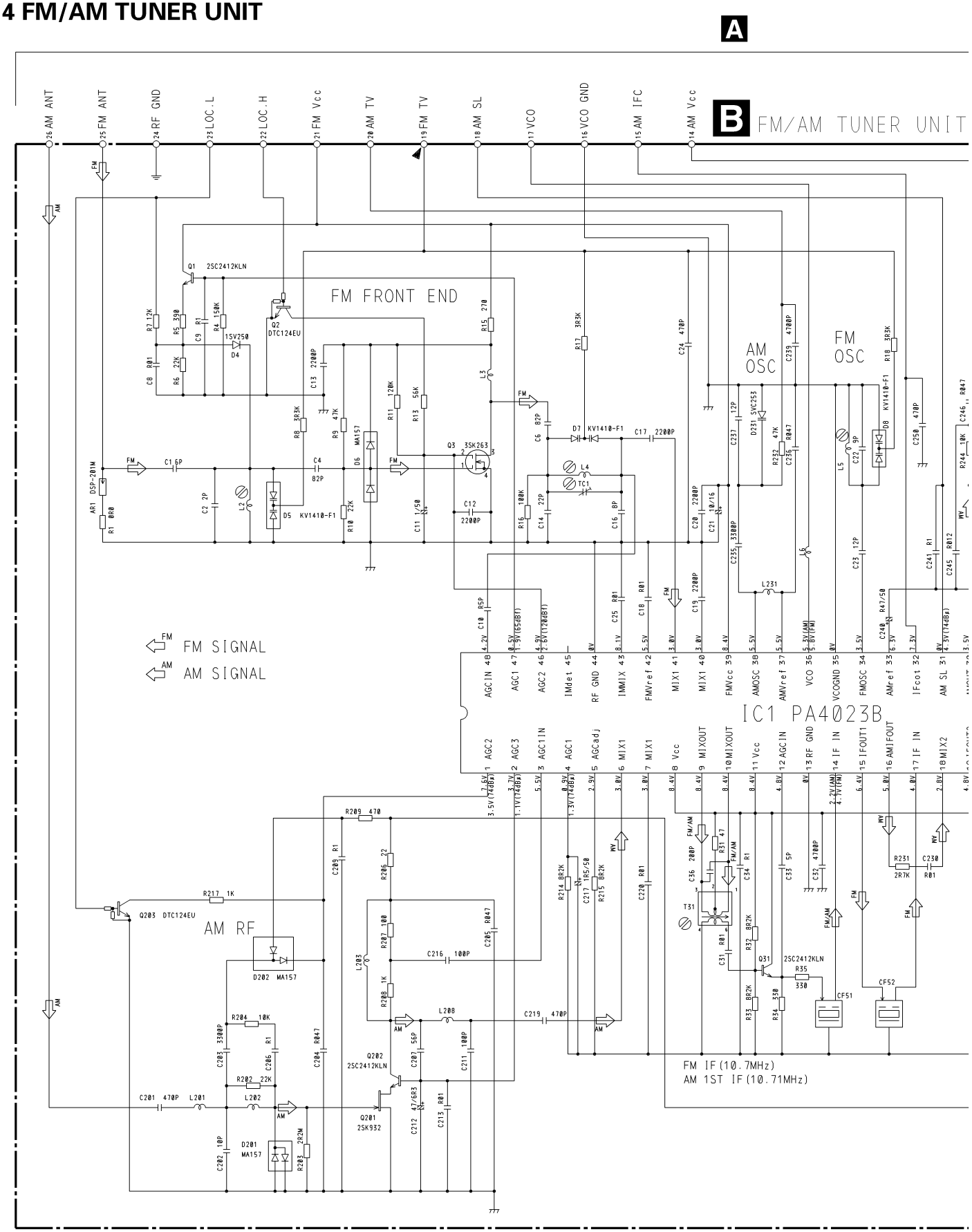

KEYBOARD UNIT
Consists of
KEYBOARD PCB
SWITCH PCB
DEH-P835R/EW
DEH-P735R/EW
IC1902
PD6199A
KEY CONTROLLER
AND LCD DRIVER
IC1903
PD6200A
LCD DRIVER
Q1901
2SC2712
IC1904
SC14SU69F
X1901
CSS1405
4.0000MHz
5V
2.2V
2.9V
or Back Light

Fig. 10

3.4 FM/AM TUNER UNIT



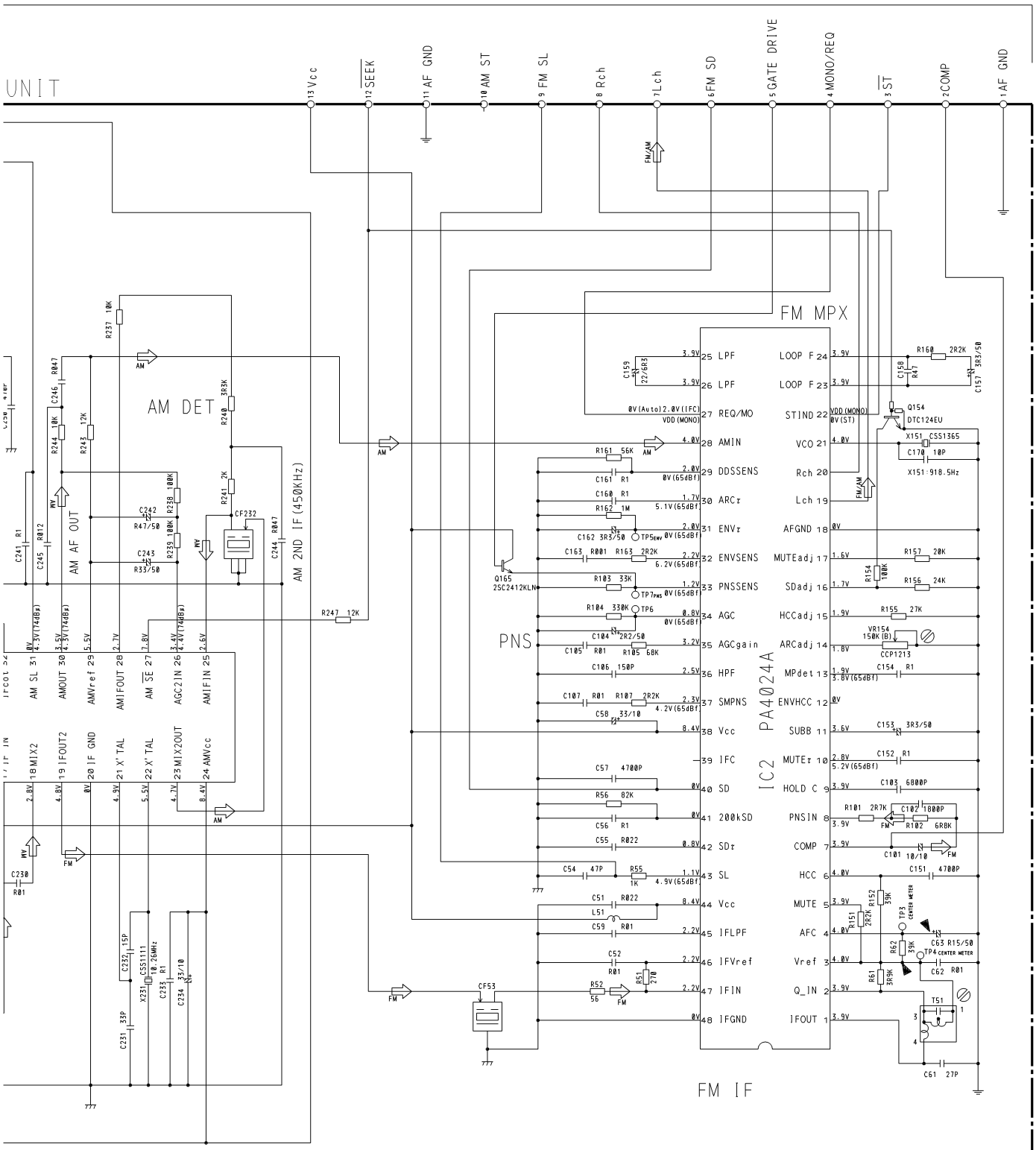

UNIT
13 Vcc
12 SEEK
11 AF GND
10 AM ST
9 FM SL
8 Rch
7 Lch
6 FM SD
5 GATE DRIVE
4 MONO/REQ
3 ST
2 COMP
1 AF GND
FM MPX
AM DET
AM AF OUT
AM 2ND IF (450KHz)
PNS
IC2 PA4024A
FM IF
LOOP F
STIND
VCO
Rch
Lch
AFGND
MUTEadj
SDadj
HCCadj
ARCadj
MPdet
ENVHCC
SUBB
MUTEr
HOLD C
PNSIN
COMP
HCC
MUTE
AFC
Vref
Q_IN
IFOUT
LPF
REQ/MO
AMIN
DDSSENS
ARCr
ENVr
ENVSENS
PNSSENS
AGC
AGCgain
HPF
SMPNS
Vcc
IFC
SD
200kSD
SDr
SL
Vcc
IFLPF
IFVref
IFIN
IFGND
AM SL
AMOUT
AMVref
AMIFOUT
AM SE
AGC2IN
AMIFIN
MIX2
IFOUT2
IF GND
XTAL
XTAL
MIX2OUT
AMVcc
Q165 2SC2412KLN
Q154 DTC124EU
X151 CSS1365 X151:918.5Hz
CF232
CF53
X231 CSS1111 10.25MHz
TP3 CENTER METER
TP4 CENTER METER
TP5ENV
TP7PNS
TP6
VR154 150K (B) CCP1213
T51

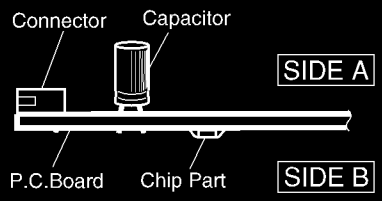
Fig. 11

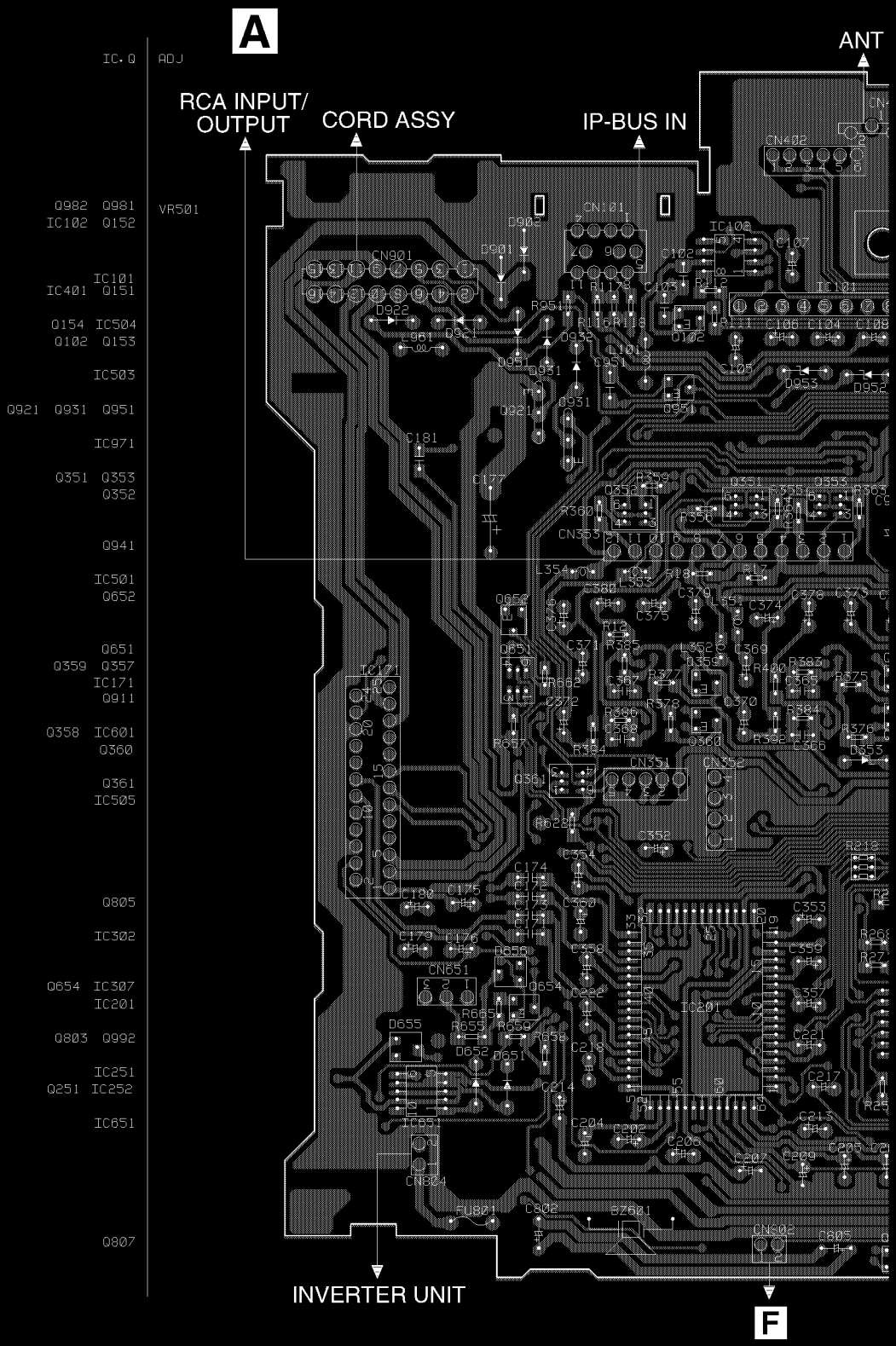
4. PCB CONNECTION DIAGRAM

4.1 TUNER AMP UNIT

NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams





SIDE A

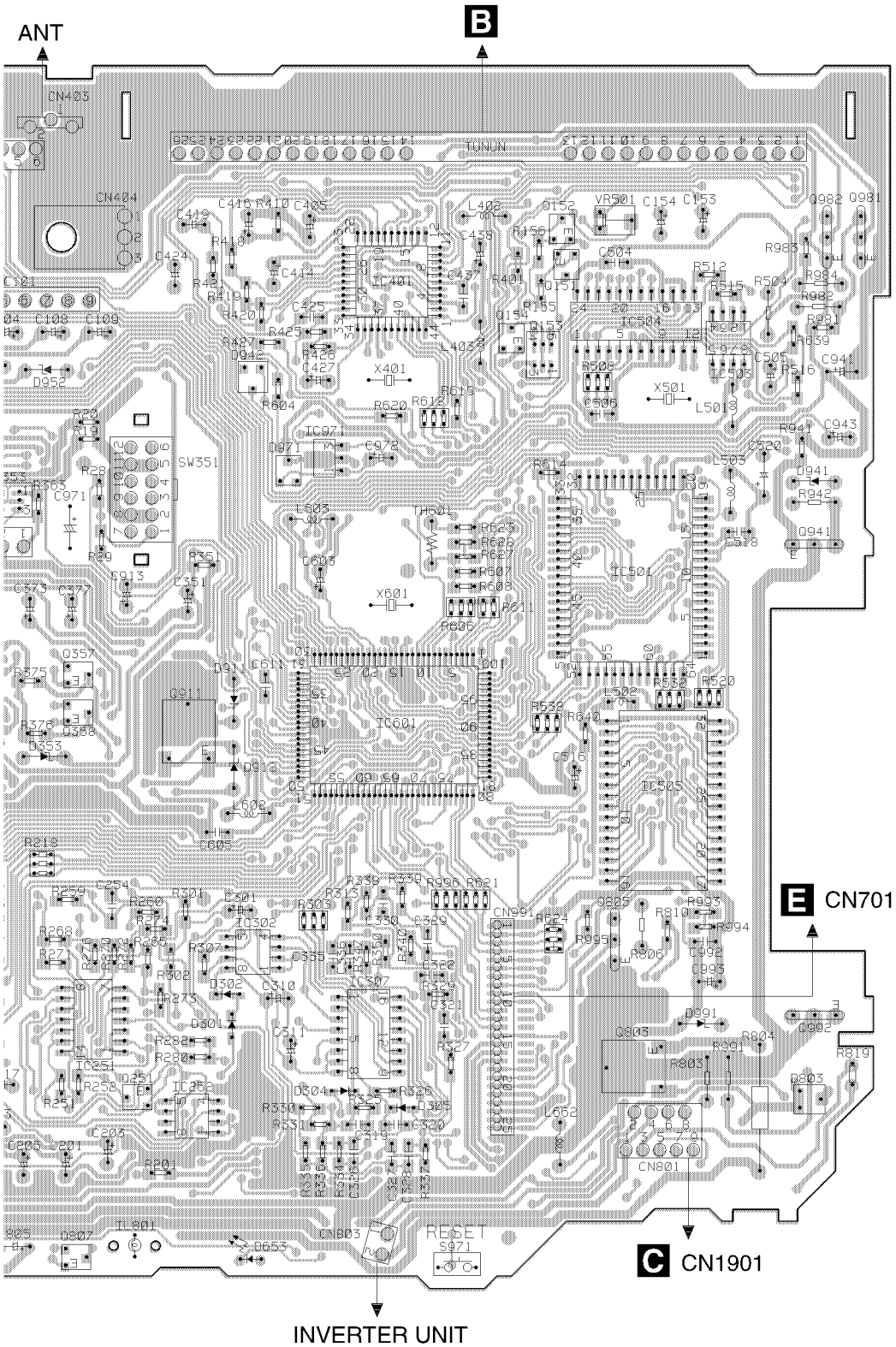
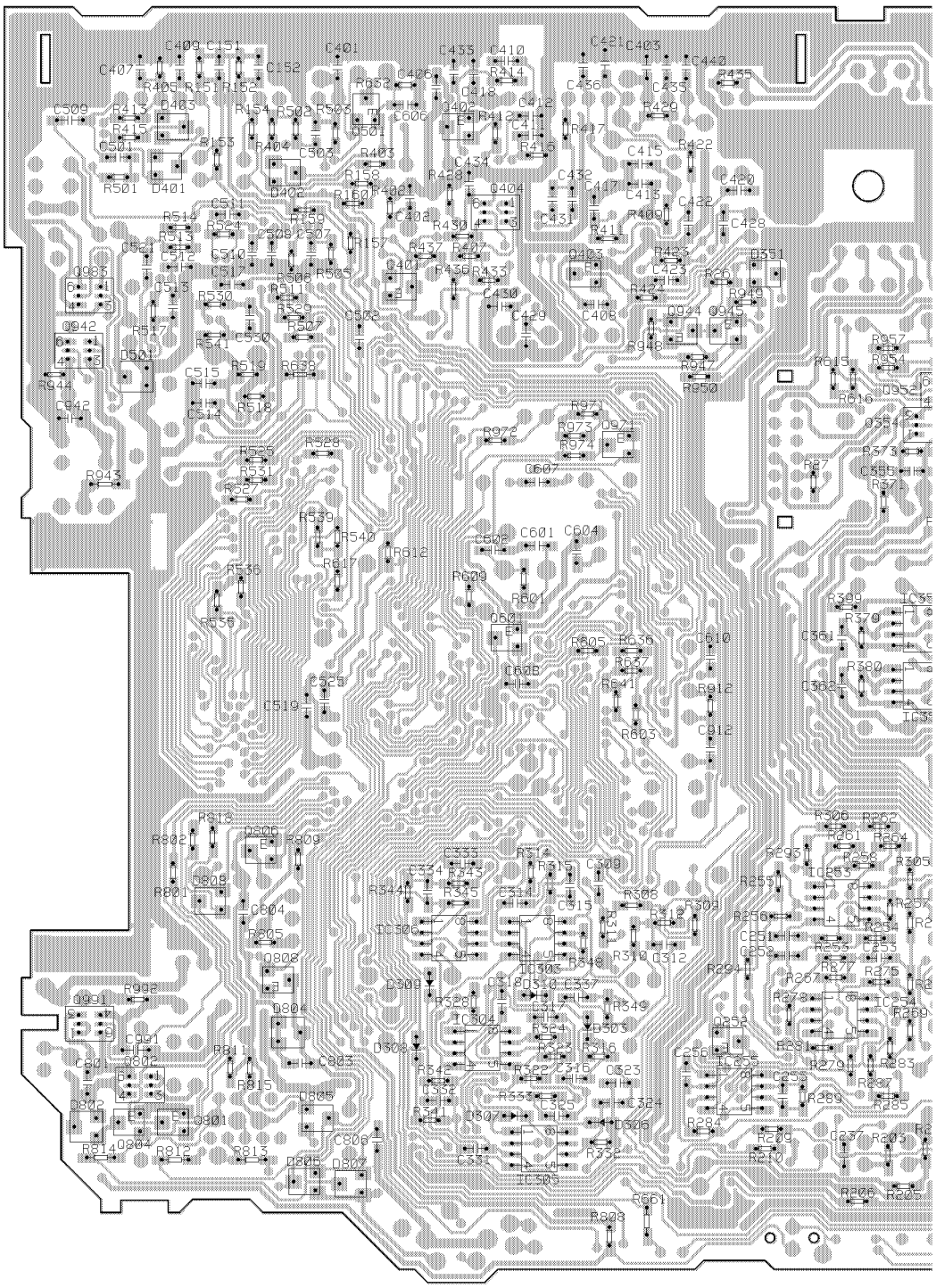
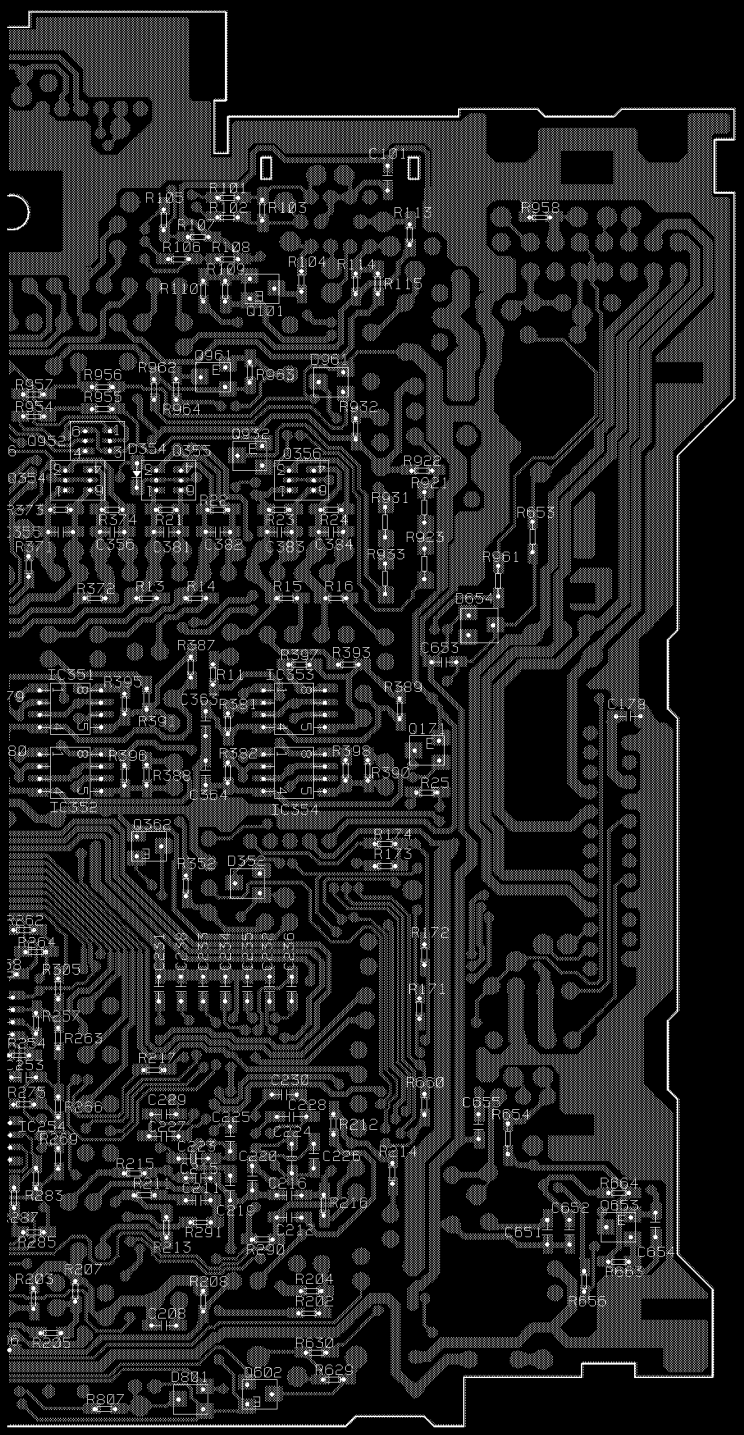

ANT
B
CN405
CN404
TUNUN
SW351
RESET
S971
E CN701
C CN1901
INVERTER UNIT

Fig. 12

A



SIDE B



IC.Q

Q402
Q501

Q404

Q403
Q983 Q401 Q101

Q944 Q945
Q942 Q961

Q932
Q952 Q355
Q356
Q971 Q354

IC351 IC353
Q601
Q171

IC352 IC354
Q362

Q806

IC253

IC306

Q808 IC303

Q991 IC254
IC304 Q252

Q802 IC255 Q653

Q801
Q804

IC305

Q602

Fig. 13

4.2 CD MECHANISM MODULE

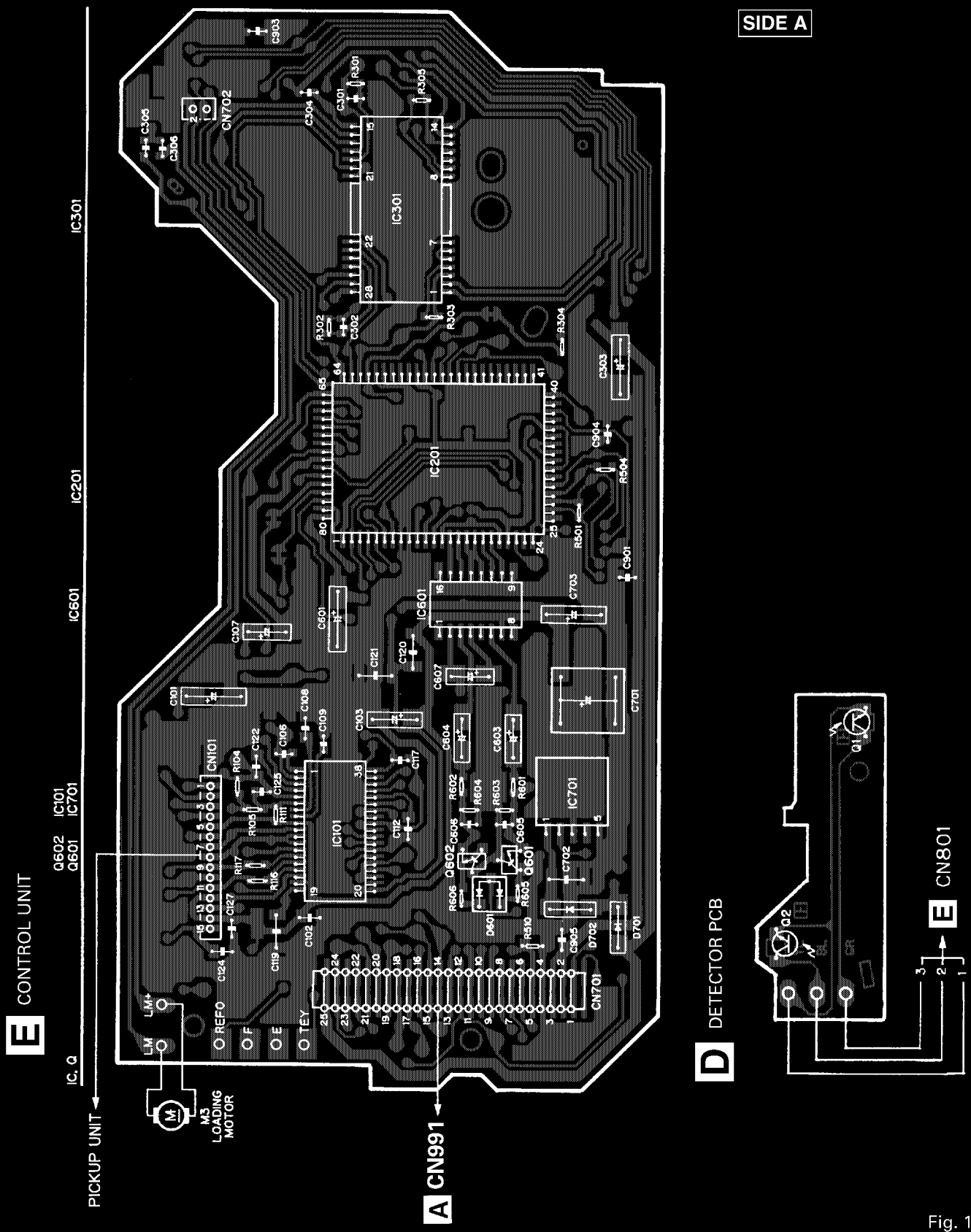


Fig. 14

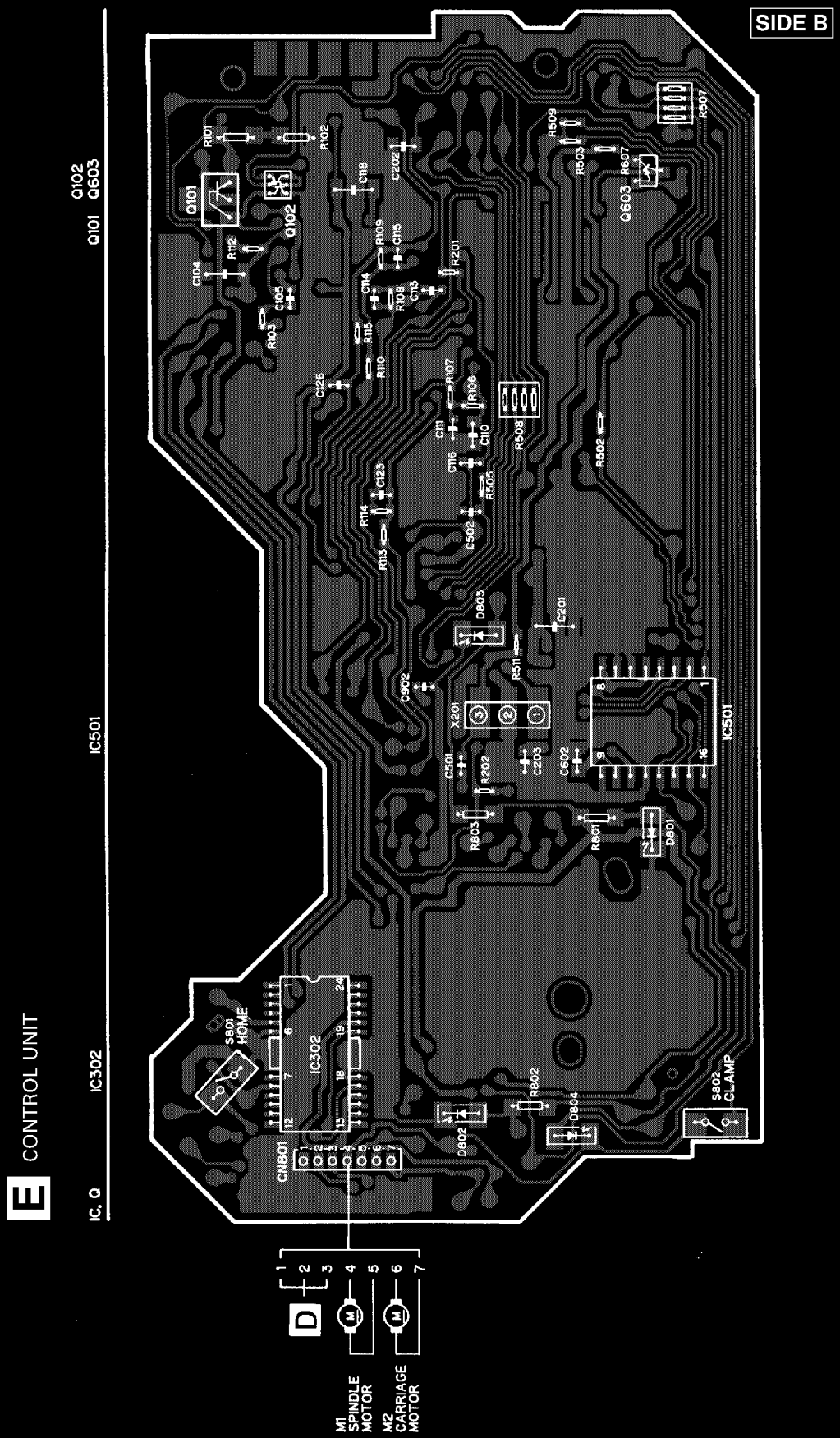

SIDE B
E CONTROL UNIT
IC, Q
IC302
IC501
Q102
Q603
Q101
S801 HOME
S802 CLAMP
CN801
D
M1 SPINDLE MOTOR
M2 CARRIAGE MOTOR

Fig. 15

4.3 KEYBOARD PCB(DEH-P835R/EW)

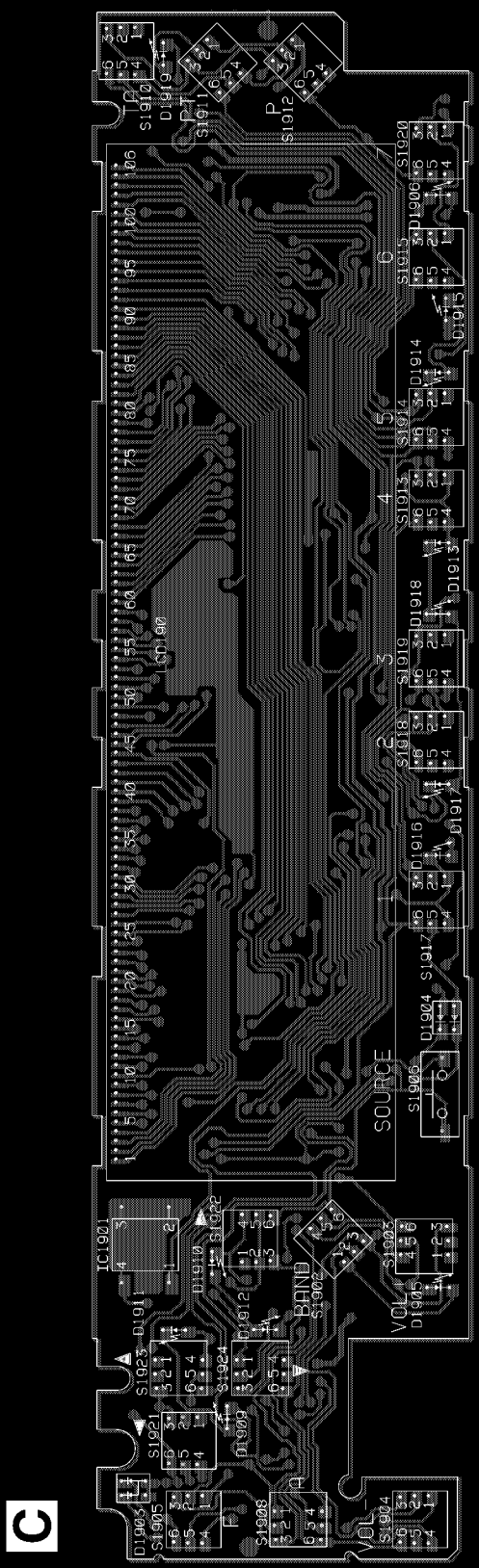


Fig. 16

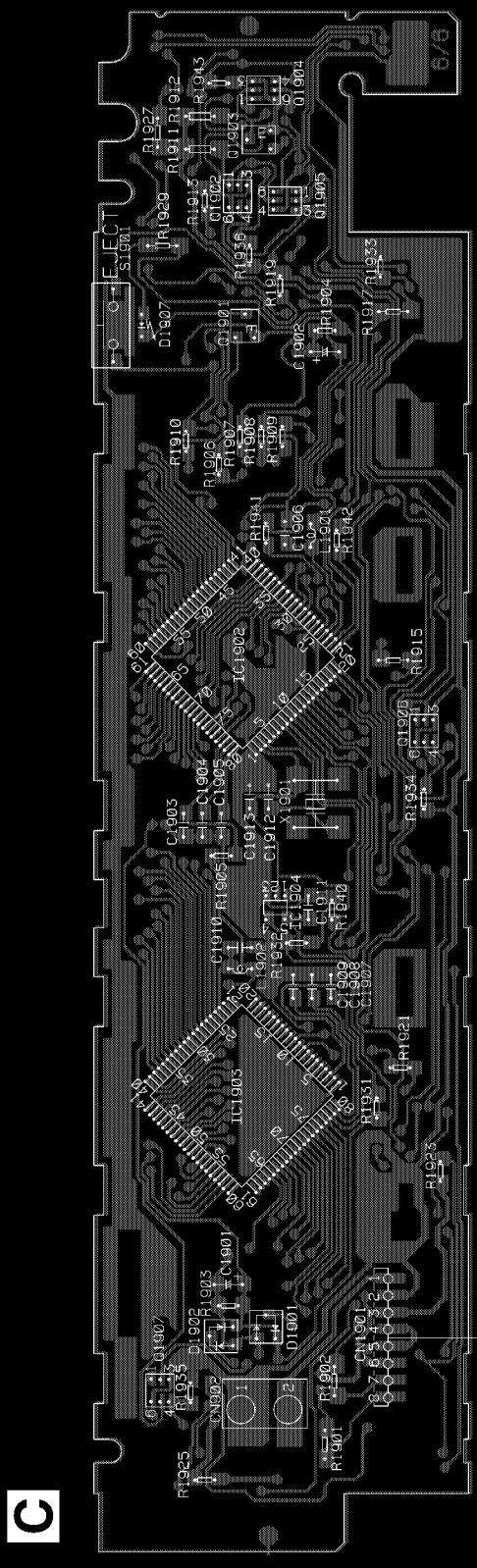

SIDE B
IC.Q
Q1907
Q1901 Q1902 Q1903
IC1903 IC1902
IC1904 Q1904
Q1905
Q1906
EJECT
S1901
A CN801
C

Fig. 17

4.4 KEYBOARD PCB(DEH-P735R/EW)

SIDE A

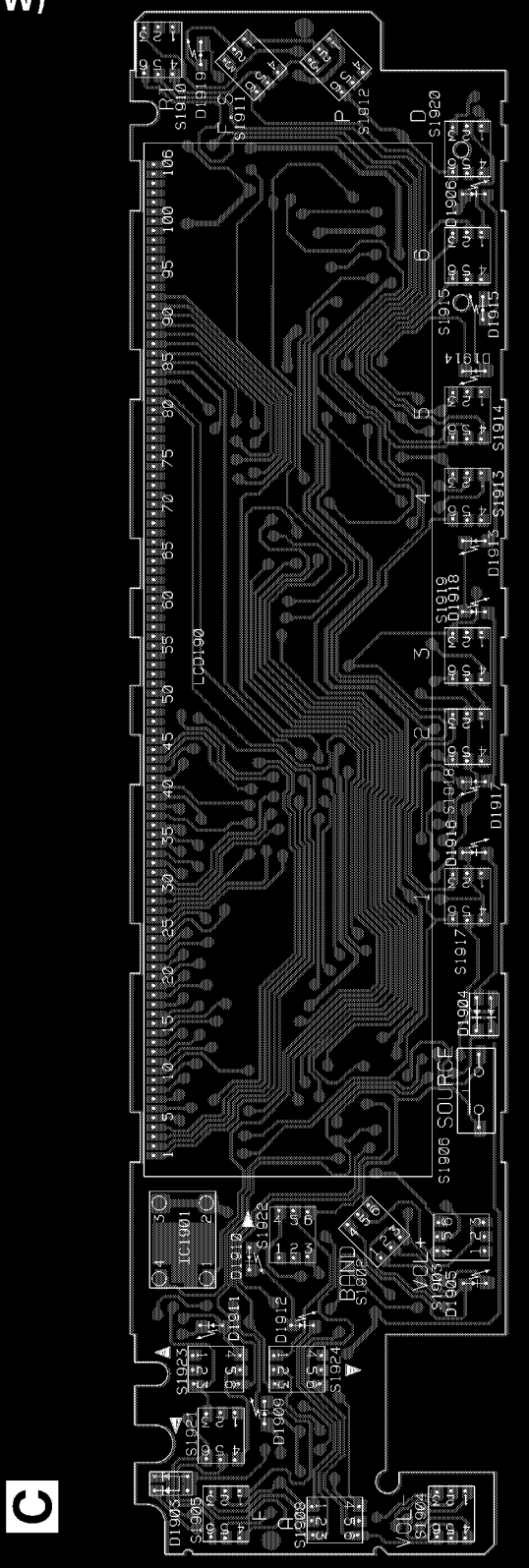
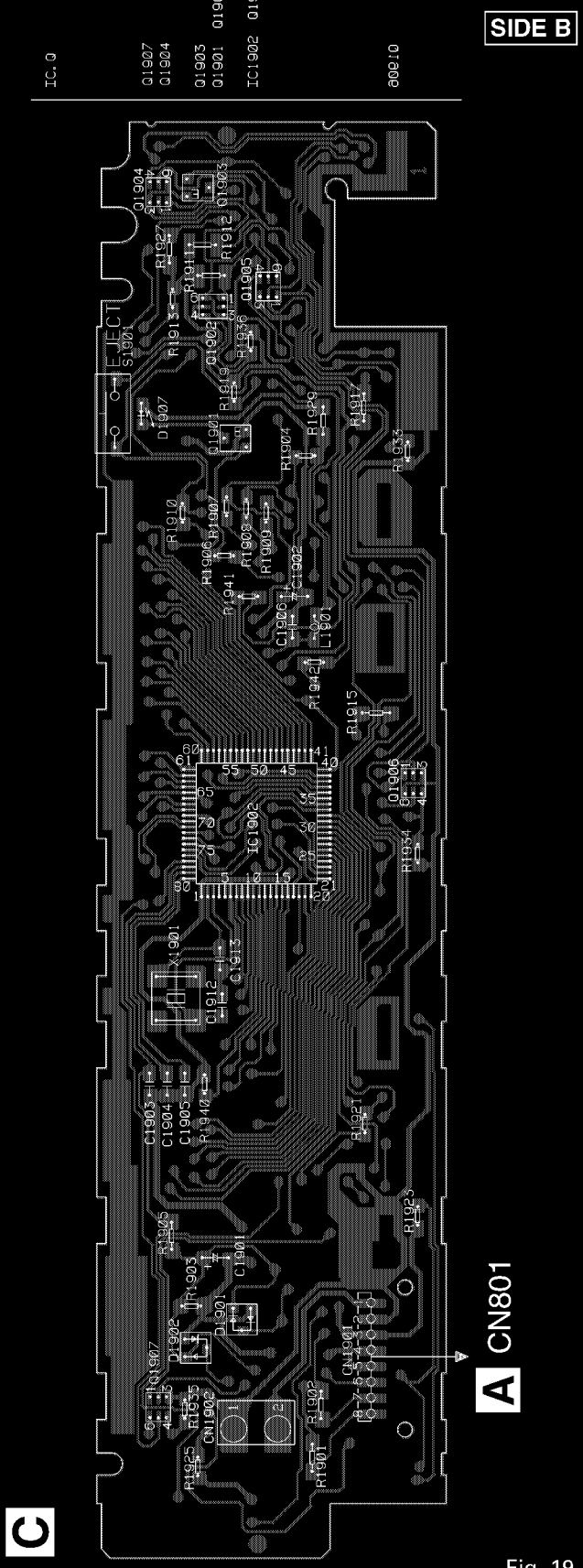


Fig. 18

4.5 SWITCH PCB



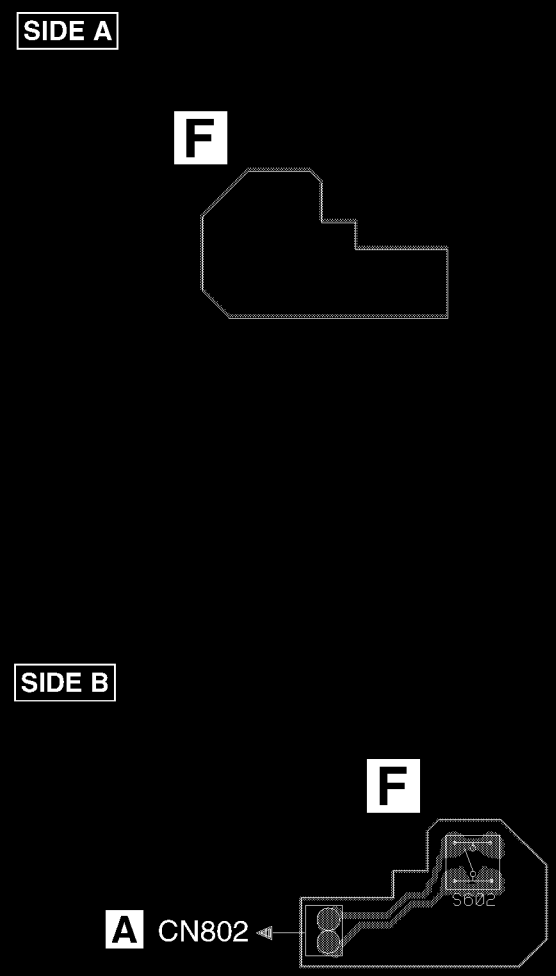


Fig. 19

4.6 FM/AM TUNER UNIT

SIDE A

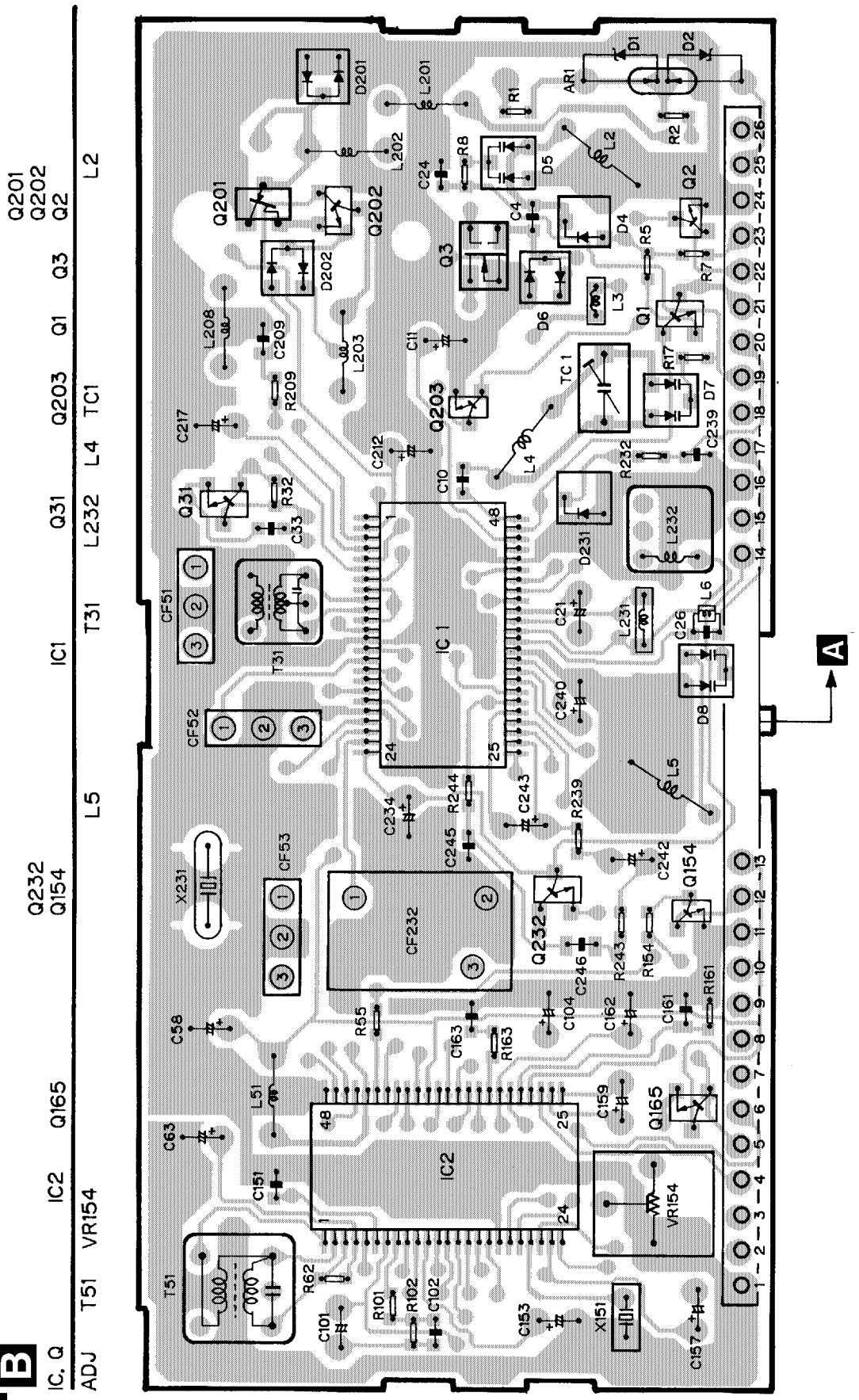


Fig. 20

SIDE B

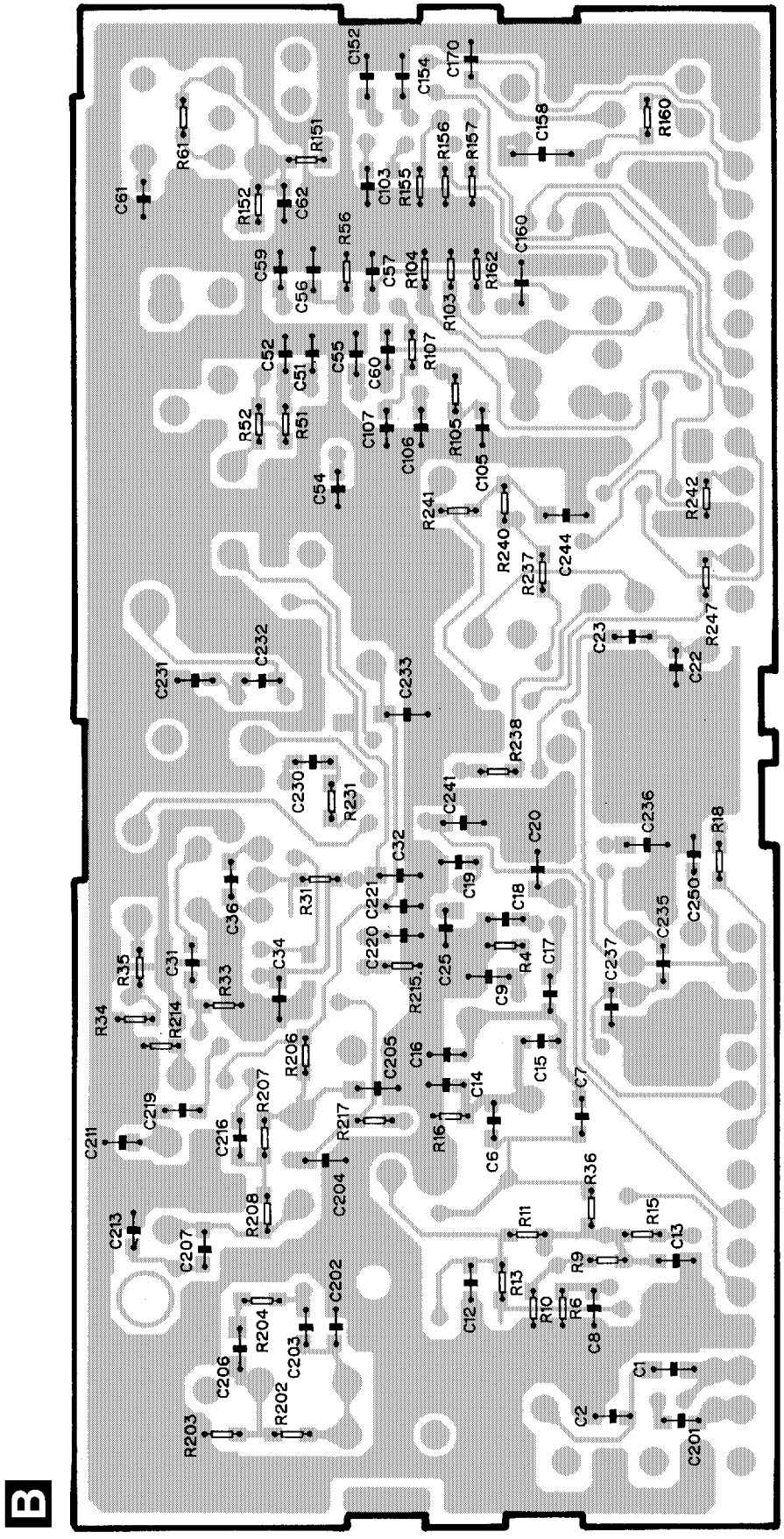

B
C61
R61
R152
C62
R151
C152
C154
C170
C158
R160
R156
R157
C103
R155
R56
C59
C56
C57
R104
R162
C160
R103
C52
C51
C55
C60
R107
R52
R51
C107
C106
R105
C105
C54
R241
R240
C244
R242
R237
R247
C23
C22
C231
C232
C233
C230
R231
R238
C241
C236
R18
C32
C20
C19
C18
C221
C220
R31
C36
C34
C25
R4
C17
C9
R215
R35
R34
R214
C31
R33
R206
C205
C16
C14
C15
C7
C219
R207
C216
C211
R217
C204
R16
C6
R36
R208
C213
C207
R11
R15
C13
R9
C12
R13
R10
R6
C8
R204
C202
C203
C206
R202
R203
C1
C2
C201
C250
C235
C237

Fig. 21

5. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○J,RS1/○○S○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

B Unit Number : CWE1416
Unit Name : FM/AM Tuner Unit

MISCELLANEOUS

=====Circuit Symbol & No.	Part Name	Part No.
IC 1	IC	PA4023B
IC 2	IC	PA4024A
Q 1	Transistor	2SC2412KLN
Q 2	Transistor	DTC124EU
Q 3	FET	3SK263
Q 31	Transistor	2SC2412KLN
Q 154	Transistor	DTC124EU
Q 165	Transistor	2SC2412KLN
Q 201	FET	2SK932
Q 202	Transistor	2SC2412KLN
Q 203	Transistor	DTC124EU
D 4	Diode	1SV250
D 5	Diode	KV1410-F1
D 6	Diode	MA157
D 7	Diode	KV1410-F1
D 8	Diode	KV1410-F1
D 201	Diode	MA157
D 202	Diode	MA157
D 231	Diode	SVC253
L 2	Coil	CTC1108
L 3	Inductor	LCTB2R2K2125
L 4	Coil	CTC1108
L 5	Coil	CTC1107
L 6	Inductor	LCTBR15K1608
L 51	Ferri-Inductor	LAU150K
L 201	Ferri-Inductor	LAU4R7K
L 202	Ferri-Inductor	LAU330K
L 203	Inductor	CTF1287
L 208	Inductor	LAU121K
L 231	Inductor	LCTA3R3J3225
T 31	Coil	CTE1116
T 51	Coil	CTC1136
TC 1		CCL1038
CF 51	Ceramic Filter	CTF1292
CF 52	Ceramic Filter	CTF1292
CF 53	Ceramic Filter	CTF1292
CF 232	Ceramic Filter	CTF1348
X 151	Resonator 920.5kHz	CSS1365
X 231	Crystal Resonator 10.26MHz	CSS1111
VR 154	Semi-fixed 150kΩ(B)	CCP1213
AR 1		DSP-201M

RESISTORS

=====Circuit Symbol & No.	Part Name	Part No.
R 1		RS1/16S0R0J
R 4		RS1/16S154J
R 5		RS1/16S391J
R 6		RS1/16S223J
R 7		RS1/16S123J
R 8		RS1/16S332J
R 9		RS1/16S473J
R 10		RS1/16S223J
R 11		RS1/16S124J
R 13		RS1/16S563J
R 15		RS1/16S271J
R 16		RS1/16S104J
R 17		RS1/16S332J
R 18		RS1/16S332J
R 31		RS1/16S470J
R 32		RS1/16S822J
R 33		RS1/16S822J
R 34		RS1/16S331J
R 35		RS1/16S331J
R 51		RS1/16S271J
R 52		RS1/16S560J
R 55		RS1/16S102J
R 56		RS1/16S823J
R 61		RS1/16S392J
R 62		RS1/16S393J
R 101		RS1/16S272J
R 102		RS1/16S682J
R 103		RS1/16S333J
R 104		RS1/16S334J
R 105		RS1/16S683J
R 107		RS1/16S222J
R 151		RS1/16S222J
R 152		RS1/16S393J
R 154		RS1/16S104J
R 155		RS1/16S273J
R 156		RS1/16S243J
R 157		RS1/16S203J
R 160		RS1/16S222J
R 161		RS1/16S563J
R 162		RS1/16S105J
R 163		RS1/16S222J
R 202		RS1/16S223J
R 203		RS1/16S225J
R 204		RS1/16S103J
R 206		RS1/16S220J
R 207		RS1/16S101J
R 208		RS1/16S102J
R 209		RS1/16S471J
R 214		RS1/16S822J
R 215		RS1/16S822J
R 217		RS1/16S102J
R 231		RS1/16S272J
R 232		RS1/16S473J
R 237		RS1/16S103J
R 238		RS1/16S104J

=====Circuit Symbol & No.===Part Name			Part No.
R	239		RS1/16S104J
R	240		RS1/16S332J
R	241		RS1/16S202J
R	243		RS1/16S123J
R	244		RS1/16S103J
R	247		RS1/16S123J
CAPACITORS			
C	1		CCSQCH6R0D50
C	2		CCSRCK2R0C50
C	4		CCSRCH820J50
C	6		CCSRCH820J50
C	8		CKSRYB103K25
C	9		CKSQYB104K16
C	10		CCSRCKR50C50
C	11		CEJA1R0M50
C	12		CKSRYB222K50
C	13		CKSRYB222K50
C	14		CCSRCH220J50
C	16		CCSRCH8R0D50
C	17		CKSRYB222K50
C	18		CKSRYB103K25
C	19		CKSRYB222K50
C	20		CKSRYB222K50
C	21		CEJA100M16
C	22		CCSRTH9R0D50
C	23		CCSRTH120J50
C	24		CCSRCH471J50
C	25		CKSRYB103K25
C	31		CKSRYB103K25
C	32		CKSQYB472K50
C	33		CCSRCH5R0C50
C	34		CKSQYB104K16
C	36		CCSRRH201J50
C	51		CKSRYB223K25
C	52		CKSRYB103K25
C	54		CCSRCH470J50
C	55		CKSQYB223K25
C	56		CKSQYB104K16
C	57		CKSRYB472K50
C	58		CEJA330M10
C	59		CKSRYB103K25
C	61		CCSRCH270J50
C	62		CKSRYB103K25
C	63		CEJAR15M50
C	101		CEJANP100M10
C	102		CKSRYB182K50
C	103		CKSRYB682K25
C	104		CEJA2R2M50
C	105		CKSRYB103K25
C	106		CCSRCH151J50
C	107		CKSRYB103K25
C	151		CKSRYB472K50
C	152		CKSQYB104K16
C	153		CEJA3R3M50
C	154		CKSQYB104K16
C	157		CEJA3R3M50
C	158		CKSYB474K16
C	159		CEJA220M6R3
C	160		CKSQYB104K16
C	161		CKSQYB104K16
C	162		CEJA3R3M50
C	163		CKSRYB102K50
C	170		CCSRCH100D50
C	201		CCSRCH471J50
C	202		CCSRCH100D50
C	203		CKSRYB332K50
C	204		CKSQYB473K16

=====Circuit Symbol & No.===Part Name			Part No.
C	205		CKSQYB473K16
C	206		CKSQYB104K16
C	207		CCSRCH560J50
C	209		CKSQYB104K16
C	211		CCSRCH101J50
C	212		CEJA470M6R3
C	213		CKSRYB103K25
C	216		CCSRCH101J50
C	217		CEJA1R5M50
C	219		CCSRCH471J50
C	220		CKSRYB103K25
C	230		CKSRYB103K25
C	231		CCSRCH330J50
C	232		CCSRCH150J50
C	233		CKSQYB104K16
C	234		CEJA330M10
C	235		CKSRYB332K50
C	236		CKSQYB473K16
C	237		CCSRCH120J50
C	239		CKSRYB472K50
C	240		CEJAR47M50
C	241		CKSQYB104K16
C	242		CEJAR47M50
C	243		CEJAR33M50
C	244		CKSQYB473K16
C	245		CKSRYB123K25
C	246		CKSQYB473K16
C	250		CCSRCH471J50

A Unit Number : CWM5048
Unit Name : Tuner Amp Unit(DEH-P835R/EW)

MISCELLANEOUS

IC	101	IC	TA2050S
IC	102	IC	CA0008AM
IC	171	IC	TDA7386
IC	201	IC	PM0008BF
IC	251	IC	TC4066BF
IC	252	IC	NJM4558MD
IC	253	IC	NJM4558MD
IC	254	IC	NJM4558MD
IC	255	IC	NJM4558MD
IC	302	IC	NJM4558MD
IC	303	IC	NJM4558MD
IC	304	IC	NJM4558MD
IC	305	IC	NJM4558MD
IC	306	IC	NJM4558MD
IC	307	IC	TC4051BF
IC	351	IC	NJM4558MD
IC	352	IC	NJM4558MD
IC	353	IC	NJM4558MD
IC	354	IC	NJM4558MD
IC	401	IC	PM2005B
IC	503	IC	NJM2903M
IC	504	IC	PMW001B
IC	601	IC	PD4771A
IC	971	IC	S-80730ANDT
Q	101	Chip Transistor	2SA1162
Q	102	Transistor	DTC124EK
Q	151	Transistor	2SD1757K
Q	152	Transistor	2SD1757K
Q	153	Transistor	IMH3A
Q	154	Transistor	DTA114EK
Q	171	Transistor	DTC124EK
Q	251	Transistor	DTC124EK
Q	252	Transistor	DTC124EK
Q	354	Transistor	IMH3A
Q	355	Transistor	IMH3A

=====Circuit Symbol & No.	===	Part Name	Part No.
Q	356	Transistor	IMH3A
Q	357	Transistor	2SC2712
Q	358	Transistor	2SC2712
Q	359	Transistor	2SC2712
Q	360	Transistor	2SC2712
Q	361	Transistor	IMD2A
Q	401	Transistor	2SC2712
Q	402	Transistor	2SC2712
Q	403	Transistor	DTC124EK
Q	404	Transistor	IMD2A
Q	501	Transistor	2SC2712
Q	601	Transistor	DTA114EK
Q	602	Transistor	DTC114EK
Q	651	Transistor	IMD2A
Q	652	Transistor	DTC123EK
Q	653	Transistor	DTC123EK
Q	654	Transistor	DTC123EK
Q	801	Transistor	2SC2712
Q	802	Transistor	IMD2A
Q	803	Transistor	2SD1760F5
Q	804	Transistor	DTC114EK
Q	805	Transistor	2SB1238
Q	806	Transistor	DTC143EK
Q	807	Transistor	2SC3295
Q	808	Chip Transistor	2SA1162
Q	911	Transistor	2SD1760F5
Q	921	Transistor	2SB1243
Q	931	Transistor	2SB1243
Q	932	Transistor	DTC124EK
Q	941	Transistor	2SD2396
Q	942	Transistor	IMD2A
Q	944	Transistor	2SC2712
Q	945	Transistor	2SC2712
Q	951	Transistor	DTC114EK
Q	952	Transistor	IMX1
Q	961	Chip Transistor	2SA1162
Q	971	Transistor	DTA144TK
Q	981	Transistor	2SA1674
Q	982	Transistor	2SA1674
Q	983	Transistor	IMH1A
Q	991	Transistor	IMD2A
Q	992	Transistor	2SD2396
D	301	Diode	MA110
D	302	Diode	MA110
D	303	Diode	MA110
D	304	Diode	MA110
D	305	Diode	MA110
D	306	Diode	MA110
D	307	Diode	MA110
D	308	Diode	MA110
D	309	Diode	MA110
D	310	Diode	MA110
D	351	Chip Diode	MA151WK
D	353	Diode	HZS7L(B3)
D	354	Diode	MA110
D	402	Chip Diode	MA151WK
D	403	Chip Diode	MA151WK
D	501	Diode	MA3047(M)
D	653	LED	BR4361F
D	654	Diode	MA3160(H)
D	655	Diode	MA3160(H)
D	656	Diode	MA3160(H)
D	801	Diode	DA204K
D	802	Diode	MA3047(M)
D	803	Diode	MA3082(L)

=====Circuit Symbol & No.	===	Part Name	Part No.
D	804	Diode	MA3062(M)
D	805	Diode	DA204K
D	806	Diode	DA204K
D	807	Diode	DA204K
D	808	Chip Diode	MA151WK
D	901	Diode	ERA15-02VH
D	902	Diode	ERA15-02VH
D	911	Diode	ERA15-02VH
D	912	Diode	HZS6L(B1)
D	921	Diode	ERA15-02VH
D	922	Diode	ERA15-02VH
D	931	Diode	ERA15-02VH
D	932	Diode	ERA15-02VH
D	941	Diode	HZS9L(B3)
D	942	Diode	MA3082(L)
D	951	Diode	ERA15-02VH
D	952	Diode	HZS7L(C3)
D	953	Diode	HZS7L(A1)
D	961	Chip Diode	MA151WK
D	971	Chip Diode	MA151K
D	991	Diode	HZS9L(B1)
L	101	Inductor	LAU3R3K
L	351	Inductor	LCTBR47K2125
L	352	Inductor	LCTBR47K2125
L	353	Inductor	LCTBR47K2125
L	354	Inductor	LCTBR47K2125
L	402	Ferri-Inductor	LAU2R2K
L	403	Ferri-Inductor	LAU2R2K
L	501	Ferri-Inductor	LAU2R2K
L	602	Ferri-Inductor	LAU2R2K
L	603	Inductor	LAU100K
L	662	Ferri-Inductor	LAU220K
L	961	Ferri-Inductor	LAU2R2K
TH	601	Thermistor	CCX1031
X	401	Crystal Resonator 7.200MHz	CSS1379
X	501	Crystal Resonator 4.332MHz	CSS1056
X	601	Resonator 12.58291MHz	CSS1402
S	971	Switch(RESET)	CSG1046
SW	351	Switch(PRE OUT/MAIN IN)	CSH1009
IL	801	Lamp 14V 40mA	CEL1263
VR	501	Semi-fixed 22kΩ(B)	CCP1129
FU	801	0.4A	ICP-N10
		FM/AM Tuner Unit	CWE1416
BZ	601	Buzzer	CPV1011

RESISTORS

R	11	RS1/10S393J
R	12	RS1/10S393J
R	13	RS1/10S821J
R	14	RS1/10S821J
R	15	RS1/10S821J
R	16	RS1/10S821J
R	21	RS1/10S473J
R	22	RS1/10S473J
R	23	RS1/10S473J
R	24	RS1/10S473J
R	25	RS1/10S102J
R	26	RS1/10S473J
R	28	RS1/10S0R0J
R	101	RS1/10S101J
R	102	RS1/10S101J
R	103	RS1/10S620J
R	104	RS1/10S222J
R	105	RS1/10S102J
R	106	RS1/10S102J
R	107	RS1/10S473J

=====Circuit Symbol & No.===Part Name			Part No.	=====Circuit Symbol & No.===Part Name			Part No.
R	108		RS1/10S473J	R	275		RS1/10S2002F
R	109		RS1/10S332J	R	276		RS1/10S4322F
R	110		RS1/10S562J	R	277		RS1/10S4322F
R	111		RS1/10S472J	R	278		RS1/10S2212F
R	112		RS1/10S103J	R	279		RS1/10S2742F
R	113		RS1/10S181J	R	280		RS1/10S333J
R	114		RS1/10S223J	R	281		RS1/10S2002F
R	115		RS1/10S102J	R	282		RS1/10S473J
R	116		RS1/10S102J	R	283		RS1/10S2212F
R	117		RS1/10S223J	R	284		RS1/10S473J
R	118		RS1/10S181J	R	285		RS1/10S473J
R	151		RS1/10S272J	R	287		RS1/10S3322F
R	152		RS1/10S272J	R	289		RS1/10S473J
R	155		RS1/10S224J	R	301		RS1/10S223J
R	156		RS1/10S224J	R	302		RS1/10S223J
R	157		RS1/10S222J	R	303		RA3C102J
R	158		RS1/10S222J	R	307		RS1/10S473J
R	159		RS1/10S223J	R	308		RS1/10S123J
R	160		RS1/10S223J	R	309		RS1/10S102J
R	171		RS1/10S103J	R	310		RS1/10S102J
R	172		RS1/10S331J	R	311		RS1/10S222J
R	173		RS1/10S103J	R	312		RS1/10S473J
R	174		RS1/10S103J	R	313		RS1/10S333J
R	201		RS1/10S102J	R	314		RS1/10S132J
R	202		RS1/10S102J	R	315		RS1/10S134J
R	203		RS1/10S332J	R	316		RS1/10S225J
R	204		RS1/10S332J	R	322		RS1/10S393J
R	205		RS1/10S102J	R	323		RS1/10S162J
R	206		RS1/10S102J	R	324		RS1/10S164J
R	207		RS1/10S103J	R	325		RS1/10S225J
R	208		RS1/10S103J	R	326		RS1/10S225J
R	209		RS1/10S102J	R	327		RS1/10S273J
R	210		RS1/10S103J	R	328		RS1/10S112J
R	211		RS1/10S272J	R	329		RS1/10S114J
R	212		RS1/10S272J	R	330		RS1/10S363J
R	213		RS1/10S151J	R	331		RS1/10S152J
R	214		RS1/10S151J	R	332		RS1/10S154J
R	215		RS1/10S101J	R	333		RS1/10S225J
R	216		RS1/10S101J	R	334		RS1/10S225J
R	217		RS1/10S472J	R	335		RS1/10S433J
R	218		RA3C472J	R	336		RS1/10S182J
R	251		RS1/10S472J	R	337		RS1/10S184J
R	252		RS1/10S472J	R	338		RS1/10S623J
R	253		RS1/10S3322F	R	339		RS1/10S272J
R	254		RS1/10S3322F	R	340		RS1/10S224J
R	255		RS1/10S3322F	R	341		RS1/10S225J
R	256		RS1/10S3322F	R	342		RS1/10S225J
R	257		RS1/10S6812F	R	343		RS1/10S1213F
R	258		RS1/10S6812F	R	344		RS1/10S512J
R	259		RS1/10S1652F	R	345		RS1/10S474J
R	260		RS1/10S3322F	R	347		RS1/10S122J
R	261		RS1/10S3322F	R	348		RS1/10S1213F
R	262		RS1/10S471J	R	349		RS1/10S225J
R	263		RS1/10S331J	R	350		RS1/10S303J
R	264		RS1/10S472J	R	351		RS1/10S270J
R	265		RS1/10S561J	R	371		RS1/10S821J
R	266		RS1/10S152J	R	372		RS1/10S821J
R	267		RS1/10S362J	R	373		RS1/10S223J
R	268		RS1/10S8252F	R	374		RS1/10S223J
R	269		RS1/10S1213F	R	375		RS1/10S222J
R	270		RS1/10S1213F	R	376		RS1/10S222J
R	271		RS1/10S8252F	R	377		RS1/10S222J
R	272		RS1/10S1003F	R	378		RS1/10S222J
R	273		RS1/10S1003F	R	379		RS1/10S392J
R	274		RS1/10S2002F	R	380		RS1/10S392J

=====Circuit Symbol & No.===Part Name			Part No.
R	381		RS1/10S392J
R	382		RS1/10S392J
R	383		RS1/10S393J
R	384		RS1/10S393J
R	385		RS1/10S393J
R	386		RS1/10S393J
R	387		RS1/10S334J
R	388		RS1/10S334J
R	389		RS1/10S334J
R	390		RS1/10S334J
R	391		RS1/10S473J
R	392		RS1/10S473J
R	393		RS1/10S473J
R	394		RS1/10S473J
R	395		RS1/10S334J
R	396		RS1/10S334J
R	397		RS1/10S334J
R	398		RS1/10S334J
R	399		RS1/10S393J
R	400		RS1/10S393J
R	401		RS1/10S472J
R	402		RS1/10S224J
R	403		RS1/10S103J
R	405		RS1/10S105J
R	407		RS1/10S562J
R	409		RS1/10S681J
R	410		RS1/10S682J
R	411		RS1/10S472J
R	412		RS1/10S222J
R	413		RS1/10S222J
R	414		RS1/10S102J
R	416		RS1/10S473J
R	417		RS1/10S0R0J
R	418		RS1/10S102J
R	419		RS1/10S682J
R	420		RS1/10S472J
R	421		RS1/10S561J
R	422		RS1/10S103J
R	423		RS1/10S222J
R	424		RS1/10S152J
R	425		RS1/10S392J
R	426		RS1/10S392J
R	427		RS1/10S272J
R	428		RS1/10S0R0J
R	429		RS1/10S222J
R	430		RS1/10S562J
R	433		RS1/10S472J
R	435		RS1/10S0R0J
R	436		RS1/10S473J
R	437		RS1/10S473J
R	501		RS1/10S562J
R	502		RS1/10S102J
R	503		RS1/10S103J
R	504		RD1/4PU151J
R	505		RS1/10S3322F
R	506		RS1/10S0R0J
R	507		RS1/10S102J
R	508		RA3C102J
R	511		RS1/10S102J
R	512		RS1/10S102J
R	513		RS1/10S222J
R	514		RS1/10S222J
R	515		RS1/10S684J
R	516		RS1/10S681J
R	517		RS1/10S562J

=====Circuit Symbol & No.===Part Name			Part No.
R	518		RS1/10S222J
R	519		RS1/10S105J
R	524		RS1/10S681J
R	530		RS1/10S0R0J
R	541		RS1/10S0R0J
R	601		RS1/10S102J
R	604		RS1/10S681J
R	605		RS1/10S473J
R	607		RS1/10S473J
R	608		RS1/10S473J
R	609		RS1/10S473J
R	611		RA2CQ223J
R	612		RS1/10S473J
R	614		RS1/10S473J
R	615		RS1/10S473J
R	616		RS1/10S393J
R	618		RA3C681J
R	619		RS1/10S681J
R	620		RS1/10S681J
R	621		RA3C222J
R	622		RS1/10S473J
R	623		RN1/10SE2202D
R	624		RA3C473J
R	627		RS1/10S104J
R	628		RS1/10S104J
R	629		RS1/10S102J
R	630		RS1/10S102J
R	632		RS1/10S393J
R	637		RS1/10S473J
R	638		RS1/10S473J
R	639		RS1/10S473J
R	641		RS1/10S473J
R	653		RS1/8S102J
R	654		RS1/8S102J
R	655		RS1/8S102J
R	657		RS1/10S103J
R	658		RS1/10S473J
R	659		RS1/10S473J
R	660		RS1/10S473J
R	661		RS1/8S331J
R	662		RS1/10S163J
R	663		RS1/10S163J
R	664		RS1/10S103J
R	665		RS1/10S163J
R	801		RS1/10S103J
R	802		RS1/10S224J
R	803		RD1/4PU471J
R	804		RS2PMF100J
R	805		RS1/10S222J
R	806		RD1/4PU102J
R	807		RS1/10S104J
R	808		RS1/10S1R0J
R	809		RS1/10S472J
R	810		RS1/10S472J
R	811		RS1/10S104J
R	812		RS1/8S222J
R	813		RS1/8S222J
R	814		RS1/8S222J
R	818		RS1/10S224J
R	819		RS2PMF330J
R	912		RS1/10S332J
R	921		RS1/4S221J
R	922		RS1/10S472J
R	923		RS1/4S221J

=====Circuit Symbol & No.===Part Name			Part No.	=====Circuit Symbol & No.===Part Name			Part No.
R	931		RS1/4S221J	C	207		CEJA470M10
R	932		RS1/10S472J	C	208		CKSQYB104K50
R	933		RS1/4S221J	C	209		CEJA100M16
R	941		RS1/10S1R0J	C	211		CKSQYB822K50
R	942		RD1/4PU221J	C	212		CKSQYB822K50
R	943		RS1/8S681J	C	213		CEJA1R0M50
R	947		RS1/10S473J	C	214		CEJA1R0M50
R	948		RS1/10S103J	C	215		CKSQYB152K50
R	949		RS1/10S473J	C	216		CKSQYB152K50
R	950		RS1/10S224J	C	217		CEJANP100M10
R	951		RS1/10S103J	C	218		CEJANP100M10
R	954		RS1/10S103J	C	219		CKSQYB183K25
R	955		RS1/10S473J	C	220		CKSQYB183K25
R	956		RS1/10S473J	C	221		CEJANP100M10
R	957		RS1/10S103J	C	222		CEJANP100M10
R	958		RS1/10S472J	C	223		CKSYB334K16
R	961		RS1/8S153J	C	224		CKSYB334K16
R	962		RS1/10S472J	C	225		CKSQYB103K50
R	963		RS1/10S472J	C	226		CKSQYB103K50
R	964		RS1/10S102J	C	227		CKSYB105K16
R	971		RS1/10S822J	C	228		CKSYB105K16
R	972		RS1/10S102J	C	229		CKSQYB823K25
R	974		RS1/10S471J	C	230		CKSQYB823K25
R	981		RS1/10S472J	C	231		CKSQYB333K25
R	982		RD1/4PU102J	C	232		CKSQYB333K25
R	983		RS1/10S472J	C	233		CKSQYB104K50
R	984		RD1/4PU102J	C	234		CKSQYB473K16
R	991		RD1/4PU221J	C	235		CKSQYB562K50
R	992		RS1/10S221J	C	236		CKSQYB104K50
R	993		RS1/10S222J	C	237		CKSQYB473K16
R	994		RS1/10S472J	C	238		CCSQCH470J50
R	995		RS1/10S681J	C	251		CKSQYB104K50
R	996		RA3C102J	C	252		CKSQYB104K50
				C	253		CKSQYB472K50
CAPACITORS				C	254		CKSYB474K16
C	101		CKSQYB104K50	C	255		CCSQCH180J50
C	102		CKSQYB104K50	C	256		CCSQCH180J50
C	103		CKSQYB102K50	C	301		CEJA100M16
C	104		CEJA100M16	C	309		CKSQYB102K50
C	105		CEJA1R0M50	C	310		CEJA100M16
C	106		CEJA1R0M50	C	311		CEJA470M10
C	107		CEJA100M16	C	312		CKSQYB103K50
C	108		CEJA1R0M50	C	314		CKSQYB152K50
C	109		CEJA1R0M50	C	315		CKSQYB152K50
C	151		CKSQYB223K25	C	316		CKSQYB104K50
C	152		CKSQYB223K25	C	317		CKSQYB332K50
C	153		CEJA1R0M50	C	318		CKSQYB332K50
C	154		CEJA1R0M50	C	319		CKSQYB104K50
C	171		CKSYB224K16	C	320		CKSQYB104K50
C	172		CKSYB224K16	C	321		CKSQYB123K25
C	173		CKSYB224K16	C	322		CKSQYB123K25
C	174		CKSYB224K16	C	323		CKSQYB223K25
C	175		CEJA330M16	C	324		CKSQYB223K25
C	176		CEJA1R0M50	C	325		CKSQYB104K50
C	177		CCH1125	C	326		CKSQYB104K50
C	178		CKSQYB104K50	C	327		CKSQYB473K16
C	179		CEHAR100M16	C	328		CKSQYB473K16
C	180		CEHAS1R0M50	C	329		CKSQYB823K25
C	181		CKSQYB102K50	C	330		CKSQYB823K25
C	201		CEJA1R0M50	C	331		CKSQYB104K50
C	202		CEJA1R0M50	C	332		CKSQYB104K50
C	203		CEJA1R0M50	C	333		CKSQYB823K25
C	204		CEJA1R0M50	C	334		CKSQYB823K25
C	205		CEJA1R0M50	C	335		CKSQYB821K50
C	206		CEJA1R0M50	C	336		CKSQYB821K50

Circuit Symbol & No.	Part Name	Part No.
C 337		CKSQYB104K50
C 351		CEJA101M10
C 353		CEJA100M16
C 354		CEJA100M16
C 357		CEJA100M16
C 358		CEJA100M16
C 359		CEJA100M16
C 360		CEJA100M16
C 361		CKSQYB103K50
C 362		CKSQYB103K50
C 363		CKSQYB103K50
C 364		CKSQYB103K50
C 365		CCSQCH560J50
C 366		CCSQCH560J50
C 367		CCSQCH560J50
C 368		CCSQCH560J50
C 369		CEJA4R7M35
C 370		CEJA4R7M35
C 371		CEJA4R7M35
C 372		CEJA4R7M35
C 373		CEJA4R7M35
C 374		CEJA4R7M35
C 375		CEJA4R7M35
C 376		CEJA4R7M35
C 377		CEJA1R0M50
C 378		CEJA1R0M50
C 379		CEJA1R0M50
C 380		CEJA1R0M50
C 401		CKSQYB103K50
C 402		CKSQYB223K25
C 403		CKSQYB103K50
C 405		CEJA220M10
C 406		CKSQYB103K50
C 407		CKSQYB471K50
C 408		CCSQCH101J50
C 409		CKSQYB223K25
C 410		CKSQYB103K50
C 411		CKSQYB472K50
C 412		CKSQYB103K50
C 413		CKSQYB103K50
C 414		CEJA220M10
C 415		CKSQYB103K50
C 416		CEJA220M6R3
C 417		CKSQYB103K50
C 418		CKSQYB103K50
C 419	4.7µF/16V	CCH1250
C 420		CKSQYB103K50
C 421		CKLSR473K16
C 422		CKSQYB332K50
C 423		CKSQYB103K50
C 424	4.7µF/16V	CCH1250
C 425		CKSQYB103K50
C 427		CEJAR47M50
C 428		CKSQYB103K50
C 429		CCSQCH150J50
C 430		CCSQCH150J50
C 431		CKSQYB103K50
C 432		CKSQYB103K50
C 433		CCSQCH101J50
C 434		CKSQYB103K50
C 435		CKSQYB223K25
C 436		CKSQYB103K50
C 437		CKSQYB102K50
C 438		CEJA220M6R3
C 440		CKSQYB223K25

Circuit Symbol & No.	Part Name	Part No.
C 501		CKSQYB104K50
C 502		CKSQYB223K25
C 503		CKSQYB223K25
C 504		CCSQCH101J50
C 505		CEJA100M16
C 506		CKSQYB104K50
C 507		CKSQYB222K50
C 508		CKSQYB104K50
C 509		CKSYB105K16
C 510		CKSQYB104K50
C 511		CKSQYB472K50
C 512		CKSQYB103K50
C 513		CKSQYB102K50
C 514		CCSQCH270J50
C 515		CCSQCH270J50
C 517		CCSQCH101J50
C 601		CCSQCH180J50
C 602		CCSQCH180J50
C 603		CEJA101M10
C 604		CCSQCH101J50
C 606		CCSQCH101J50
C 607		CKSQYB102K50
C 608		CCSQCH101J50
C 610		CCSQCH101J50
C 653		CKSQYB103K50
C 654		CKSQYB103K50
C 655		CKSQYB103K50
C 801		CKSQYB103K50
C 802	220µF/10V	CCH1014
C 803		CCSQCH101J50
C 804		CCSQCH101J50
C 805	220µF/10V	CCH1014
C 806		CCSQCH101J50
C 912		CKSQYB472K50
C 913		CEJA470M10
C 941		CEAS331M10
C 942		CKSQYB103K50
C 943		CEJA101M16
C 951		CKSYF105Z25
C 971	0.22F/5.5V	CCL1037
C 972		CEJA2R2M50
C 991		CKSQYB473K16
C 992		CKSQYB102K50
C 993		CEJA101M10

E Unit Number : CWX1889
Unit Name : Control Unit

MISCELLANEOUS

IC	101	IC	UPC2572GS
IC	201	IC	UPD63702GF
IC	301	IC	XLA6997FP
IC	302	IC	BA6285FP
IC	601	IC	TA2063F
IC	701	IC	PQ05TZ51
Q	101	Transistor	2SD1664
Q	102	Transistor	UMD2N
Q	601	Transistor	2SD1781K
Q	602	Transistor	2SD1781K
Q	603	Transistor	2SB709A
D	601	Diode	MA151WA
D	701	Diode	1SR154-400
D	702	Diode	1SR154-400
D	801		CL200IRX
D	802		CL200IRX
X	201	Ceramic Resonator 16.93MHz	CSS1363
S	801	Switch(HOME)	CSN1028
S	802	Switch(CLAMP)	

=====Circuit Symbol & No.	===Part Name	Part No.
RESISTORS		
R 101		RS1/8S100J
R 102		RS1/8S120J
R 103		RS1/16S102J
R 104		RS1/16S822J
R 105		RS1/16S682J
R 106		RS1/16S183J
R 107		RS1/16S822J
R 108		RS1/16S333J
R 109		RS1/16S683J
R 110		RS1/16S134J
R 111		RS1/16S273J
R 112		RS1/16S222J
R 113		RS1/16S103J
R 114		RS1/16S103J
R 115		RS1/16S102J
R 116		RS1/16S163J
R 117		RS1/16S163J
R 201		RS1/16S104J
R 202		RS1/16S473J
R 304		RS1/16S0R0J
R 501		RS1/16S0R0J
R 505		RS1/16S102J
R 507		RA4C102J
R 508		RA4C681J
R 510		RS1/10S0R0J
R 601		RS1/16S102J
R 602		RS1/16S102J
R 603		RS1/16S223J
R 604		RS1/16S223J
R 605		RS1/16S162J
R 606		RS1/16S162J
R 607		RS1/16S103J
R 801		RS1/8S751J
R 802		RS1/8S751J
CAPACITORS		
C 101		CEV101M6R3
C 102		CKSQYB104K16
C 103		CEV470M6R3
C 104		CKSYB334K16
C 105		CCSRCH330J50
C 106		CKSRYB103K25
C 107		CEV4R7M35
C 108		CKSQYB273K50
C 109		CCSRCH101J50
C 110		CKSQYB104K16
C 111		CKSRYB332K50
C 112		CKSQYB473K16
C 113		CKSRYB103K25
C 114		CKSRYB391K50
C 115		CCSRCH121J50
C 116		CKSRYB682K25
C 117		CKSRYB333K16
C 118		CKSYB334K16
C 119		CKSYB334K16
C 120		CKSYB334K16
C 121		CKSYB334K16
C 122		CKSQYB104K16
C 123		CKSRYB472K50
C 124		CKSQYB104K16
C 125		CCSRCH6R0D50
C 126		CKSRYB153K25
C 127		CCSRCH102J25
C 201		CKSYB334K16
C 202		CKSQYB104K16
C 203		CKSQYB104K16

=====Circuit Symbol & No.	===Part Name	Part No.
C 303		CEV470M16
C 304		CKSRYB103K25
C 305		CKSRYB103K25
C 306		CKSRYB103K25
C 502		CKSRYB471K50
C 601		CEV101M6R3
C 602		CKSQYB104K16
C 603		CEV4R7M35
C 604		CEV4R7M35
C 605		CKSRYB152K50
C 606		CKSRYB152K50
C 607		CEV220M6R3
C 701	22µF/6.3V	CCH1233
C 702		CKSYB334K16
C 703		CEV101M6R3
C 901		CCSRCH471J50
C 902		CCSRCH271J50
C 903		CCSRCH471J50
C 904		CCSRCH101J50

A Unit Number : CWM5053
Unit Name : Tuner Amp Unit(DEH-P735R/EW)

MISCELLANEOUS

IC 101	IC		TA2050S
IC 102	IC		CA0008AM
IC 171	IC		TDA7386
IC 201	IC		PM0008BF
IC 401	IC		PM2005B
IC 503	IC		NJM2903M
IC 504	IC		PMW001B
IC 601	IC		PD4771A
IC 971	IC		S-80730ANDT
Q 101	Chip Transistor		2SA1162
Q 102	Transistor		DTC124EK
Q 151	Transistor		2SD1757K
Q 152	Transistor		2SD1757K
Q 153	Transistor		IMH3A
Q 154	Transistor		DTA114EK
Q 171	Transistor		DTC124EK
Q 354	Transistor		IMH3A
Q 355	Transistor		IMH3A
Q 361	Transistor		IMD2A
Q 401	Transistor		2SC2712
Q 402	Transistor		2SC2712
Q 403	Transistor		DTC124EK
Q 404	Transistor		IMD2A
Q 501	Transistor		2SC2712
Q 601	Transistor		DTA114EK
Q 602	Transistor		DTC114EK
Q 651	Transistor		IMD2A
Q 652	Transistor		DTC143EK
Q 653	Transistor		DTC123EK
Q 654	Transistor		DTC123EK
Q 801	Transistor		2SC2712
Q 802	Transistor		IMD2A
Q 803	Transistor		2SD1760F5
Q 804	Transistor		DTC114EK
Q 805	Transistor		2SB1238
Q 806	Transistor		DTC143EK
Q 807	Transistor		2SC3295
Q 808	Chip Transistor		2SA1162
Q 911	Transistor		2SD1760F5
Q 921	Transistor		2SB1243
Q 931	Transistor		2SB1243
Q 932	Transistor		DTC124EK
Q 941	Transistor		2SD2396
Q 942	Transistor		IMD2A
Q 944	Transistor		2SC2712

Circuit Symbol & No.	Part Name	Part No.
Q 945	Transistor	2SC2712
Q 951	Transistor	DTC114EK
Q 952	Transistor	IMX1
Q 961	Chip Transistor	2SA1162
Q 971	Transistor	DTA144TK
Q 981	Transistor	2SA1674
Q 982	Transistor	2SA1674
Q 983	Transistor	IMH1A
Q 991	Transistor	IMD2A
Q 992	Transistor	2SD2396
D 351	Chip Diode	MA151WK
D 354	Diode	MA110
D 402	Chip Diode	MA151WK
D 403	Chip Diode	MA151WK
D 501	Diode	MA3047(M)
D 653	LED	BR4361F
D 654	Diode	MA3160(H)
D 655	Diode	MA3160(H)
D 656	Diode	MA3160(H)
D 801	Diode	DA204K
D 802	Diode	MA3047(M)
D 803	Diode	MA3082(L)
D 804	Diode	MA3062(M)
D 805	Diode	DA204K
D 806	Diode	DA204K
D 807	Diode	DA204K
D 808	Chip Diode	MA151WK
D 901	Diode	ERA15-02VH
D 902	Diode	ERA15-02VH
D 911	Diode	ERA15-02VH
D 912	Diode	HZS6L(B1)
D 921	Diode	ERA15-02VH
D 922	Diode	ERA15-02VH
D 931	Diode	ERA15-02VH
D 932	Diode	ERA15-02VH
D 941	Diode	HZS9L(B3)
D 942	Diode	MA3082(L)
D 951	Diode	ERA15-02VH
D 952	Diode	HZS7L(C3)
D 953	Diode	HZS7L(A1)
D 961	Chip Diode	MA151WK
D 971	Chip Diode	MA151K
D 991	Diode	HZS9L(B1)
L 101	Inductor	LAU3R3K
L 402	Ferri-Inductor	LAU2R2K
L 403	Ferri-Inductor	LAU2R2K
L 501	Ferri-Inductor	LAU2R2K
L 602	Ferri-Inductor	LAU2R2K
L 603	Inductor	LAU100K
L 662	Ferri-Inductor	LAU220K
L 961	Ferri-Inductor	LAU2R2K
TH 601	Thermistor	CCX1031
X 401	Crystal Resonator 7.200MHz	CSS1379
X 501	Crystal Resonator 4.332MHz	CSS1056
X 601	Resonator 12.58291MHz	CSS1402
S 971	Switch(RESET)	CSG1046
IL 801	Lamp 14V 40mA	CEL1263
VR 501	Semi-fixed 22kΩ(B)	CCP1129
FU 801	0.4A	ICP-N10
	FM/AM Tuner Unit	CWE1416
BZ 601	Buzzer	CPV1011

RESISTORS

Circuit Symbol & No.	Part Name	Part No.
R 13		RS1/10S821J
R 14		RS1/10S821J
R 17		RS1/10S0R0J
R 18		RS1/10S0R0J
R 21		RS1/10S473J
R 22		RS1/10S473J
R 25		RS1/10S102J
R 26		RS1/10S473J
R 101		RS1/10S101J
R 102		RS1/10S101J
R 103		RS1/10S620J
R 104		RS1/10S222J
R 105		RS1/10S102J
R 106		RS1/10S102J
R 107		RS1/10S473J
R 108		RS1/10S473J
R 109		RS1/10S332J
R 110		RS1/10S562J
R 111		RS1/10S472J
R 112		RS1/10S103J
R 113		RS1/10S181J
R 114		RS1/10S223J
R 115		RS1/10S102J
R 116		RS1/10S102J
R 117		RS1/10S223J
R 118		RS1/10S181J
R 151		RS1/10S272J
R 152		RS1/10S272J
R 155		RS1/10S224J
R 156		RS1/10S224J
R 157		RS1/10S222J
R 158		RS1/10S222J
R 159		RS1/10S223J
R 160		RS1/10S223J
R 171		RS1/10S103J
R 172		RS1/10S331J
R 173		RS1/10S103J
R 174		RS1/10S103J
R 201		RS1/10S102J
R 202		RS1/10S102J
R 203		RS1/10S332J
R 204		RS1/10S332J
R 205		RS1/10S102J
R 206		RS1/10S102J
R 207		RS1/10S103J
R 208		RS1/10S103J
R 209		RS1/10S102J
R 210		RS1/10S103J
R 211		RS1/10S272J
R 212		RS1/10S272J
R 213		RS1/10S151J
R 214		RS1/10S151J
R 215		RS1/10S101J
R 216		RS1/10S101J
R 217		RS1/10S472J
R 218		RA3C472J
R 290		RS1/10S0R0J
R 291		RS1/10S0R0J
R 308		RS1/10S123J
R 371		RS1/10S821J
R 372		RS1/10S821J
R 373		RS1/10S223J
R 374		RS1/10S223J
R 401		RS1/10S472J
R 402		RS1/10S224J
R 403		RS1/10S103J
R 405		RS1/10S105J
R 407		RS1/10S562J
R 409		RS1/10S681J
R 410		RS1/10S682J

=====Circuit Symbol & No.===Part Name			Part No.
R	411		RS1/10S472J
R	412		RS1/10S222J
R	413		RS1/10S222J
R	414		RS1/10S102J
R	416		RS1/10S473J
R	417		RS1/10S0R0J
R	418		RS1/10S102J
R	419		RS1/10S682J
R	420		RS1/10S472J
R	421		RS1/10S561J
R	422		RS1/10S103J
R	423		RS1/10S222J
R	424		RS1/10S152J
R	425		RS1/10S392J
R	426		RS1/10S392J
R	427		RS1/10S272J
R	428		RS1/10S0R0J
R	429		RS1/10S222J
R	430		RS1/10S562J
R	433		RS1/10S472J
R	435		RS1/10S0R0J
R	436		RS1/10S473J
R	437		RS1/10S473J
R	501		RS1/10S562J
R	502		RS1/10S102J
R	503		RS1/10S103J
R	504		RD1/4PU151J
R	505		RS1/10S3322F
R	506		RS1/10S0R0J
R	507		RS1/10S102J
R	508		RA3C102J
R	511		RS1/10S102J
R	512		RS1/10S102J
R	513		RS1/10S222J
R	514		RS1/10S222J
R	515		RS1/10S684J
R	516		RS1/10S681J
R	517		RS1/10S562J
R	518		RS1/10S222J
R	519		RS1/10S105J
R	524		RS1/10S681J
R	530		RS1/10S0R0J
R	541		RS1/10S0R0J
R	601		RS1/10S102J
R	604		RS1/10S681J
R	605		RS1/10S473J
R	607		RS1/10S473J
R	608		RS1/10S473J
R	609		RS1/10S473J
R	611		RA2CQ223J
R	612		RS1/10S473J
R	615		RS1/10S473J
R	616		RS1/10S393J
R	617		RS1/10S473J
R	618		RA3C681J
R	619		RS1/10S681J
R	620		RS1/10S681J
R	621		RA3C222J
R	622		RS1/10S473J
R	623		RN1/10SE2202D
R	624		RA3C473J
R	627		RS1/10S104J
R	628		RS1/10S104J
R	629		RS1/10S102J

=====Circuit Symbol & No.===Part Name			Part No.
R	630		RS1/10S102J
R	632		RS1/10S393J
R	636		RS1/10S473J
R	638		RS1/10S473J
R	639		RS1/10S473J
R	641		RS1/10S473J
R	653		RS1/8S102J
R	654		RS1/8S102J
R	655		RS1/8S102J
R	657		RS1/10S103J
R	658		RS1/10S473J
R	659		RS1/10S473J
R	660		RS1/10S473J
R	661		RS1/8S331J
R	662		RS1/10S223J
R	663		RS1/10S163J
R	664		RS1/10S103J
R	665		RS1/10S163J
R	801		RS1/10S103J
R	802		RS1/10S224J
R	803		RD1/4PU471J
R	804		RS2PMF100J
R	805		RS1/10S222J
R	806		RD1/4PU102J
R	807		RS1/10S104J
R	808		RS1/10S1R0J
R	809		RS1/10S472J
R	810		RS1/10S472J
R	811		RS1/10S104J
R	812		RS1/8S222J
R	813		RS1/8S222J
R	814		RS1/8S222J
R	818		RS1/10S224J
R	819		RS2PMF330J
R	912		RS1/10S332J
R	921		RS1/4S221J
R	922		RS1/10S472J
R	923		RS1/4S221J
R	931		RS1/4S221J
R	932		RS1/10S472J
R	933		RS1/4S221J
R	941		RS1/10S1R0J
R	942		RD1/4PU221J
R	943		RS1/8S681J
R	947		RS1/10S473J
R	948		RS1/10S103J
R	949		RS1/10S473J
R	950		RS1/10S224J
R	951		RS1/10S103J
R	954		RS1/10S103J
R	955		RS1/10S473J
R	956		RS1/10S473J
R	957		RS1/10S103J
R	958		RS1/10S472J
R	961		RS1/8S153J
R	962		RS1/10S472J
R	963		RS1/10S472J
R	964		RS1/10S102J
R	971		RS1/10S822J
R	972		RS1/10S102J
R	974		RS1/10S471J
R	981		RS1/10S472J
R	982		RD1/4PU102J
R	983		RS1/10S472J
R	984		RD1/4PU102J

=====Circuit Symbol & No.	===Part Name	Part No.
R 991		RD1/4PU221J
R 992		RS1/10S221J
R 993		RS1/10S222J
R 994		RS1/10S472J
R 995		RS1/10S681J
R 996		RA3C102J
CAPACITORS		
C 101		CKSQYB104K50
C 102		CKSQYB104K50
C 103		CKSQYB102K50
C 104		CEJA100M16
C 105		CEJA1R0M50
C 106		CEJA1R0M50
C 107		CEJA100M16
C 108		CEJA1R0M50
C 109		CEJA1R0M50
C 151		CKSQYB223K25
C 152		CKSQYB223K25
C 153		CEJA1R0M50
C 154		CEJA1R0M50
C 171		CKSYB224K16
C 172		CKSYB224K16
C 173		CKSYB224K16
C 174		CKSYB224K16
C 175		CEJA330M16
C 176		CEJA1R0M50
C 177		CCH1125
C 178		CKSQYB104K50
C 179		CEHAR100M16
C 180		CEHAS1R0M50
C 181		CKSQYB102K50
C 201		CEJA1R0M50
C 202		CEJA1R0M50
C 203		CEJA1R0M50
C 204		CEJA1R0M50
C 205		CEJA1R0M50
C 206		CEJA1R0M50
C 207		CEJA470M10
C 208		CKSQYB104K50
C 209		CEJA100M16
C 211		CKSQYB822K50
C 212		CKSQYB822K50
C 213		CEJA1R0M50
C 214		CEJA1R0M50
C 215		CKSQYB152K50
C 216		CKSQYB152K50
C 217		CEJANP100M10
C 218		CEJANP100M10
C 219		CKSQYB183K25
C 220		CKSQYB183K25
C 221		CEJANP100M10
C 222		CEJANP100M10
C 223		CKSYB334K16
C 224		CKSYB334K16
C 225		CKSQYB103K50
C 226		CKSQYB103K50
C 227		CKSYB105K16
C 228		CKSYB105K16
C 229		CKSQYB823K25
C 230		CKSQYB823K25
C 231		CKSQYB333K25
C 232		CKSQYB333K25
C 233		CKSQYB104K50
C 234		CKSQYB473K16
C 235		CKSQYB562K50
C 236		CKSQYB104K50
C 237		CKSQYB473K16

=====Circuit Symbol & No.	===Part Name	Part No.
C 238		CCSQCH470J50
C 353		CEJA100M16
C 354		CEJA100M16
C 373		CEJA4R7M35
C 374		CEJA4R7M35
C 401		CKSQYB103K50
C 402		CKSQYB223K25
C 403		CKSQYB103K50
C 405		CEJA220M10
C 406		CKSQYB103K50
C 407		CKSQYB471K50
C 408		CCSQCH101J50
C 409		CKSQYB223K25
C 410		CKSQYB103K50
C 411		CKSQYB472K50
C 412		CKSQYB103K50
C 413		CKSQYB103K50
C 414		CEJA220M10
C 415		CKSQYB103K50
C 416		CEJA220M6R3
C 417		CKSQYB103K50
C 418		CKSQYB103K50
C 419	4.7µF/16V	CCH1250
C 420		CKSQYB103K50
C 421		CKLSR473K16
C 422		CKSQYB332K50
C 423		CKSQYB103K50
C 424	4.7µF/16V	CCH1250
C 425		CKSQYB103K50
C 427		CEJAR47M50
C 428		CKSQYB103K50
C 429		CCSQCH150J50
C 430		CCSQCH150J50
C 431		CKSQYB103K50
C 432		CKSQYB103K50
C 433		CCSQCH101J50
C 434		CKSQYB103K50
C 435		CKSQYB223K25
C 436		CKSQYB103K50
C 437		CKSQYB102K50
C 438		CEJA220M6R3
C 440		CKSQYB223K25
C 501		CKSQYB104K50
C 502		CKSQYB223K25
C 503		CKSQYB223K25
C 504		CCSQCH101J50
C 505		CEJA100M16
C 506		CKSQYB104K50
C 507		CKSQYB222K50
C 508		CKSQYB104K50
C 509		CKSYB105K16
C 510		CKSQYB104K50
C 511		CKSQYB472K50
C 512		CKSQYB103K50
C 513		CKSQYB102K50
C 514		CCSQCH270J50
C 515		CCSQCH270J50
C 517		CCSQCH101J50
C 601		CCSQCH180J50
C 602		CCSQCH180J50
C 603		CEJA101M10
C 604		CCSQCH101J50
C 606		CCSQCH101J50
C 607		CKSQYB102K50
C 608		CCSQCH101J50

=====Circuit Symbol & No.	===	Part Name	Part No.
C	610		CCSQCH101J50
C	653		CKSQYB103K50
C	654		CKSQYB103K50
C	655		CKSQYB103K50
C	801		CKSQYB103K50
C	802	220µF/10V	CCH1014
C	803		CCSQCH101J50
C	804		CCSQCH101J50
C	805	220µF/10V	CCH1014
C	806		CCSQCH101J50
C	912		CKSQYB472K50
C	913		CEJA470M10
C	941		CEAS331M10
C	942		CKSQYB103K50
C	943		CEJA101M16
C	951		CKSYF105Z25
C	971	0.22F/5.5V	CCL1037
C	972		CEJA2R2M50
C	991		CKSQYB473K16
C	992		CKSQYB102K50
C	993		CEJA101M10

Keyboard Unit
Consists of
Keyboard PCB
Switch PCB

C F Unit Number : CWM5062
Unit Name : Keyboard Unit(DEH-P835R/EW)

MISCELLANEOUS

IC	1901	IC	RS-140
IC	1902	IC	PD6199A
IC	1903	IC	PD6200A
IC	1904	IC	SC14SU69F
Q	1901	Transistor	2SC2712
Q	1902	Transistor	IMH10A
Q	1903	Transistor	DTC143TK
Q	1904	Transistor	IMH10A
Q	1905	Transistor	IMH10A
Q	1906	Transistor	IMH10A
Q	1907	Transistor	IMH10A
D	1901	Diode	MA153
D	1902	Diode	MA153
D	1903	LED	CL155DPGD
D	1904	LED	CL155DPGD
D	1905	LED	CL170DCD
D	1906	LED	CL170DCD
D	1907	LED	CL170PGCD
D	1909	LED	CL170DCD
D	1910	LED	CL170DCD
D	1911	LED	CL170DCD
D	1912	LED	CL170DCD
D	1913	LED	CL170DCD
D	1914	LED	CL170DCD
D	1915	LED	CL170DCD
D	1916	LED	CL170DCD
D	1917	LED	CL170DCD
D	1918	LED	CL170DCD
D	1919	LED	CL170DCD
L	1901	Inductor	LCTB2R2K2125
L	1902	Inductor	LCTB2R2K2125
X	1901	Resonator 5.0000MHz	CSS1405
S	1901	Switch	CSG1043
S	1902	Switch	CSG1099
S	1903	Switch	CSG1085

=====Circuit Symbol & No.	===	Part Name	Part No.
S	1904	Switch	CSG1099
S	1905	Switch	CSG1099
S	1906	Switch	CSG1043
S	1908	Switch	CSG1099
S	1910	Switch	CSG1085
S	1911	Switch	CSG1099
S	1912	Switch	CSG1078
S	1913	Switch	CSG1084
S	1914	Switch	CSG1085
S	1915	Switch	CSG1084
S	1917	Switch	CSG1085
S	1918	Switch	CSG1084
S	1919	Switch	CSG1085
S	1920	Switch	CSG1084
S	1921	Switch	CSG1085
S	1922	Switch	CSG1085
S	1923	Switch	CSG1085
S	1924	Switch	CSG1084
S	1930	Switch	CSN1027
LCD	1901	LCD	CAW1403
		EL	CEL1493

RESISTORS

R	1901		RS1/8S222J
R	1902		RS1/8S222J
R	1903		RS1/10S272J
R	1904		RS1/10S121J
R	1905		RS1/10S102J
R	1906		RS1/10S103J
R	1907		RS1/10S470J
R	1908		RS1/10S470J
R	1909		RS1/10S470J
R	1910		RS1/10S470J
R	1911		RS1/4S561J
R	1912		RS1/4S561J
R	1913		RS1/10S151J
R	1915		RS1/8S271J
R	1917		RS1/8S271J
R	1919		RS1/10S151J
R	1921		RS1/10S151J
R	1923		RS1/10S151J
R	1925		RS1/10S151J
R	1927		RS1/8S271J
R	1929		RS1/8S151J
R	1931		RS1/10S102J
R	1936		RS1/10S103J
R	1941		RS1/10S470J
R	1942		RS1/10S470J

CAPACITORS

C	1901	CSZS100M6R3
C	1902	CSZS100M6R3
C	1903	CKSQYB103K50
C	1904	CKSQYB103K50
C	1905	CKSQYB103K50
C	1906	CKSQYB103K50
C	1907	CKSQYB103K50
C	1908	CKSQYB103K50
C	1909	CKSQYB103K50
C	1910	CKSQYB103K50
C	1911	CKSQYB103K50
C	1912	CCSQCH220J50
C	1913	CCSQCH220J50

=====Circuit Symbol & No.	===Part Name	Part No.

Keyboard Unit
Consists of
Keyboard PCB
Switch PCB

CF Unit Number : CWM5416
Unit Name : Keyboard Unit(DEH-P735R/EW)

MISCELLANEOUS

IC	1901	HIC	RS-140
IC	1902	IC	PD6199A
Q	1901	Transistor	2SC2712
Q	1902	Transistor	IMH10A
Q	1903	Transistor	DTC143TK
Q	1904	Transistor	IMH10A
Q	1905	Transistor	IMH10A
Q	1906	Transistor	IMH10A
Q	1907	Transistor	IMH10A
D	1901	Diode	MA153
D	1902	Diode	MA153
D	1903	LED	CL155DPGD
D	1904	LED	CL155DPGD
D	1905	LED	CL170DCD
D	1906	LED	CL170DCD
D	1907	LED	CL170PGCD
D	1909	LED	CL170DCD
D	1910	LED	CL170DCD
D	1911	LED	CL170DCD
D	1912	LED	CL170DCD
D	1913	LED	CL170DCD
D	1914	LED	CL170DCD
D	1915	LED	CL170DCD
D	1916	LED	CL170DCD
D	1917	LED	CL170DCD
D	1918	LED	CL170DCD
D	1919	LED	CL170DCD
L	1901	Inductor	LCTB2R2K2125
X	1901	Resonator 5.0000MHz	CSS1405
S	1901	Switch	CSG1043
S	1902	Switch	CSG1099
S	1903	Switch	CSG1085
S	1904	Switch	CSG1099
S	1905	Switch	CSG1099
S	1906	Switch	CSG1043
S	1908	Switch	CSG1099
S	1910	Switch	CSG1085
S	1911	Switch	CSG1099
S	1912	Switch	CSG1078
S	1913	Switch	CSG1084
S	1914	Switch	CSG1085
S	1915	Switch	CSG1084
S	1917	Switch	CSG1085
S	1918	Switch	CSG1084
S	1919	Switch	CSG1085
S	1920	Switch	CSG1084
S	1921	Switch	CSG1085
S	1922	Switch	CSG1085
S	1923	Switch	CSG1085
S	1924	Switch	CSG1084
S	1930	Switch	CSN1027
LCD	1901	LCD	CAW1404
		EL	CEL1493

=====Circuit Symbol & No.	===Part Name	Part No.

RESISTORS

R	1901		RS1/8S222J
R	1902		RS1/8S222J
R	1903		RS1/10S272J
R	1904		RS1/10S121J
R	1905		RS1/8S102J
R	1906		RS1/10S103J
R	1907		RS1/10S470J
R	1908		RS1/10S470J
R	1909		RS1/10S470J
R	1910		RS1/10S470J
R	1911		RS1/4S561J
R	1912		RS1/4S561J
R	1913		RS1/10S151J
R	1915		RS1/8S271J
R	1917		RS1/8S271J
R	1919		RS1/10S151J
R	1921		RS1/10S151J
R	1923		RS1/10S151J
R	1925		RS1/10S151J
R	1927		RS1/8S271J
R	1929		RS1/8S151J
R	1936		RS1/10S103J
R	1940		RS1/10S0R0J
R	1941		RS1/10S470J
R	1942		RS1/10S470J

CAPACITORS

C	1901		CSZS100M6R3
C	1902		CSZS100M6R3
C	1903		CKSQYB103K50
C	1904		CKSQYB103K50
C	1905		CKSQYB103K50
C	1906		CKSQYB103K50
C	1912		CCSQCH220J50
C	1913		CCSQCH220J50

D Unit Number :
Unit Name : Detector PCB

Q	1	Photo-transistor	CPT-230S-X
Q	2	Photo-transistor	CPT-230S-X

Miscellaneous Parts List

		Pickup Unit(SERVICE)	CXX1230
M	1	Motor Unit(SPINDLE)	CXA8912
M	2	CRG Motor Unit(CARRIAGE)	CXA8986
M	3	Load Motor Unit(LOADING)	CXA8702

6. ADJUSTMENT

6.1 TUNER ADJUSTMENT

● Connection Diagram

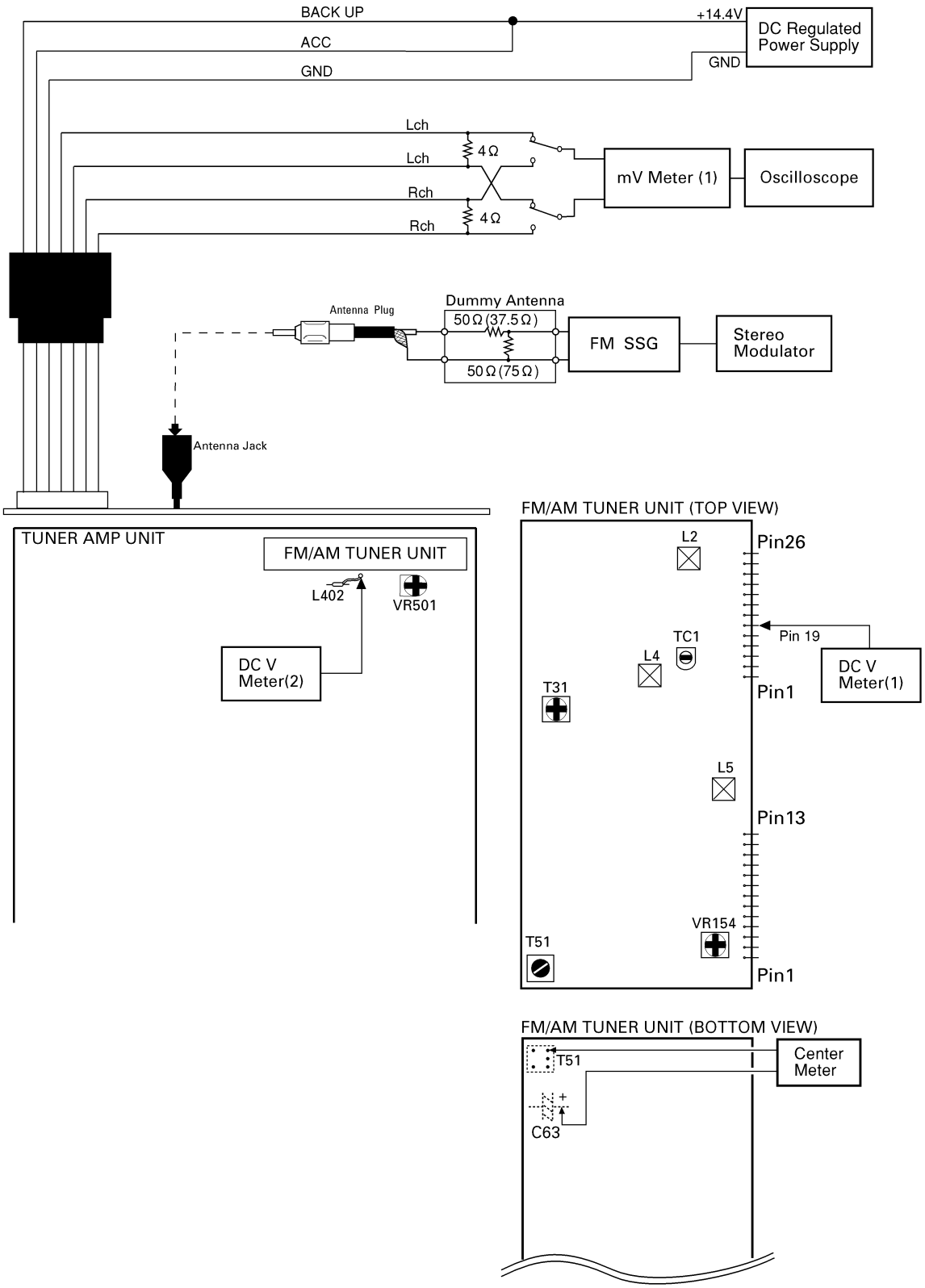


Fig. 22

FM ADJUSTMENT

Modulation M:MONO MOD., 400Hz 30%(22.5kHz Dev.)
S1:STEREO MOD., 1kHz, L or R=30%(20.25kHz+7.5kHz Dev.)
S2:STEREO MOD., 1kHz, L or R=60%(40.50kHz+7.5kHz Dev.)

NOTE:Before proceeding to further adjustments after switching power ON, let the tuner run for ten minutes to allow the circuits to stabilize.

	No.	FM SSG		Displayed	Adjustment	Adjustment Method
		Frequency(MHz)	Level(dBf)	Frequency(MHz)	Point	(Switch Position)
TUN Volt	1	•••••	•••••	108.0	L5	DC V Meter(1) : 6V
IF	1	98.1 M	60	98.1	T51	Center Meter : 0
ANT Coil	1	98.1 M	5	98.1	L2	mV Meter(1) : Maximum
RF Coil	1	98.1 M	5	98.1	L4	mV Meter(1) : Maximum
Image	1	129.3 M	60—80	107.9	TC1	mV Meter(1) : Minimum
IFT	1	98.1 M	5	98.1	T31	mV Meter(1) : Maximum (STEREO MODE)
ARC	1	98.1 S1	39	98.1	VR154	mV Meter(1) : Separation 5dB (STEREO MODE)

RDS SL ADJUSTMENT

	No.	FM SSG		Displayed	Adjustment	Adjustment Method
		Frequency(MHz)	Level(dBf)	Frequency(MHz)	Point	(Switch Position)
	1	104.0 S2	35	104.0	VR701	DC V Meter(2) : 1.75V±0.05V

6.2 CHECKING THE GRATING

● Checking the Grating After Changing the Service Pickup Unit

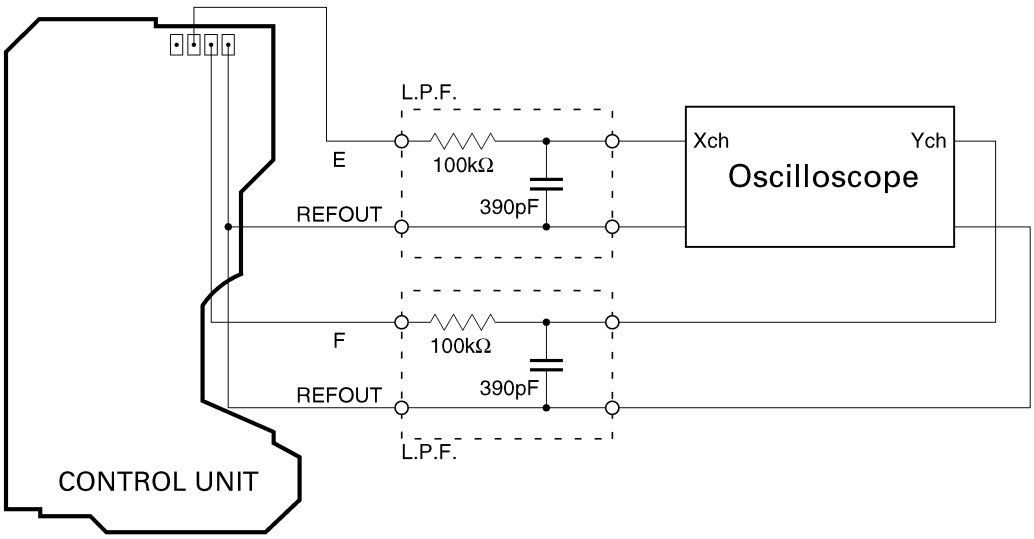
·**Note :**
Unlike previous CD mechanism modules the grating angle of the Pickup unit cannot be adjusted after the Pickup unit is changed. The Pickup unit in the CD mechanism module is adjusted on the production line to match the CD mechanism module and is thus the best adjusted Pickup unit for the CD mechanism module. Changing the Pickup unit is thus best considered as a last resort. However, if the Pickup unit must be changed, the grating should be checked using the procedure below.

·**Purpose :**
To check that the grating is within an acceptable range.

·**Symptoms of Mal-adjustment :**
If the grating is off by a large amount symptoms such as being unable to close tracking, being unable to perform track search operations, or track searching taking a long time, may appear.

·**Method :**

·Measuring Equipment	·Oscilloscope, Two L.P.F.
·Measuring Points	·E, F, REFOUT
·Disc	·ABEX TCD-784
·Mode	·TEST MODE



·**Checking Procedure**

1. In test mode, load the disc and switch the 5V regulator on.
2. Using the → and ← buttons, move the Pickup unit to the innermost track.
3. Press key **3** to close focus, the display should read "91". Press key **2** to implement the tracking balance adjustment the display should now read "81". Press key **3** 4 times. The display will change, returning to "81" on the fourth press.
4. As shown in the diagram above, monitor the LPF outputs using the oscilloscope and check that the phase difference is within 75° . Refer to the photographs supplied to determine the phase angle.
5. If the phase difference is determined to be greater than 75° try changing the Pickup unit to see if there is any improvement. If, after trying this a number of times, the grating angle does not become less than 75° then the mechanism should be judged to be at fault.

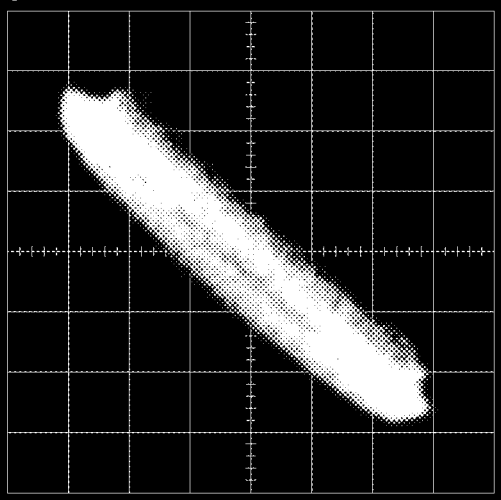
·**Note**
Because of eccentricity in the disc and a slight misalignment of the clamping center the grating waveform may be seen to "wobble" (the phase difference changes as the disc rotates). The angle specified above indicates the average angle.

·**Hint**
Reloading the disc changes the clamp position and may decrease the "wobble".

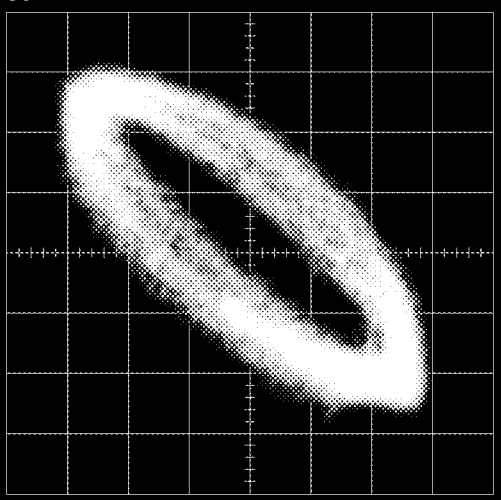
Grating waveform

Ech → Xch 20mV/div, AC
Fch → Ych 20mV/div, AC

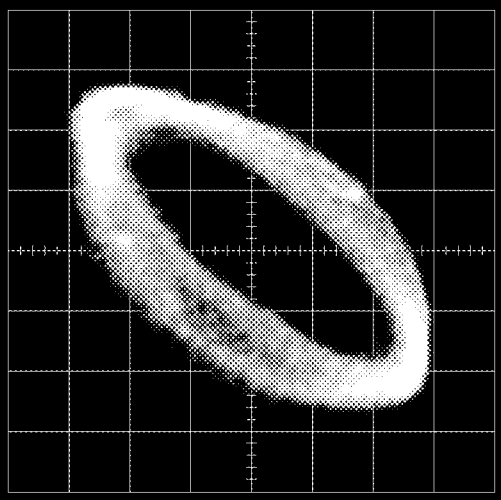
0°



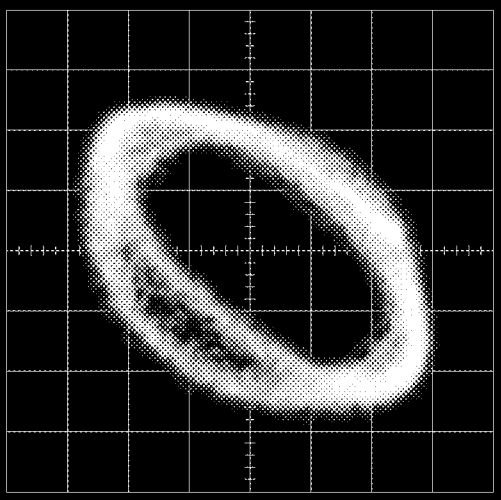
30°



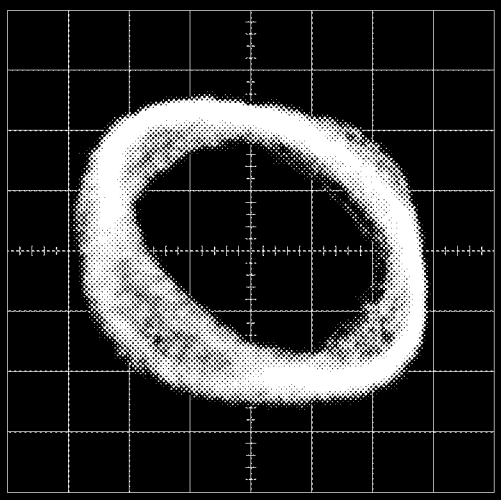
45°



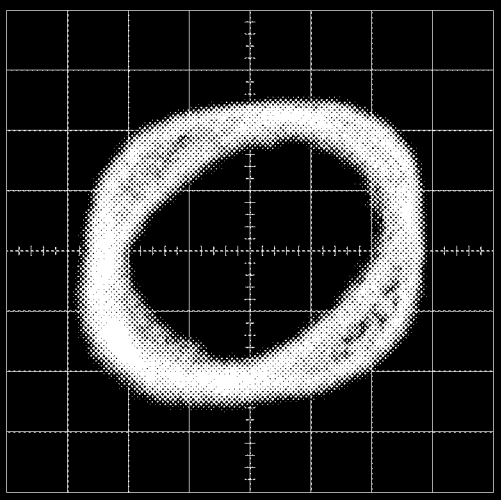
60°



75°



90°

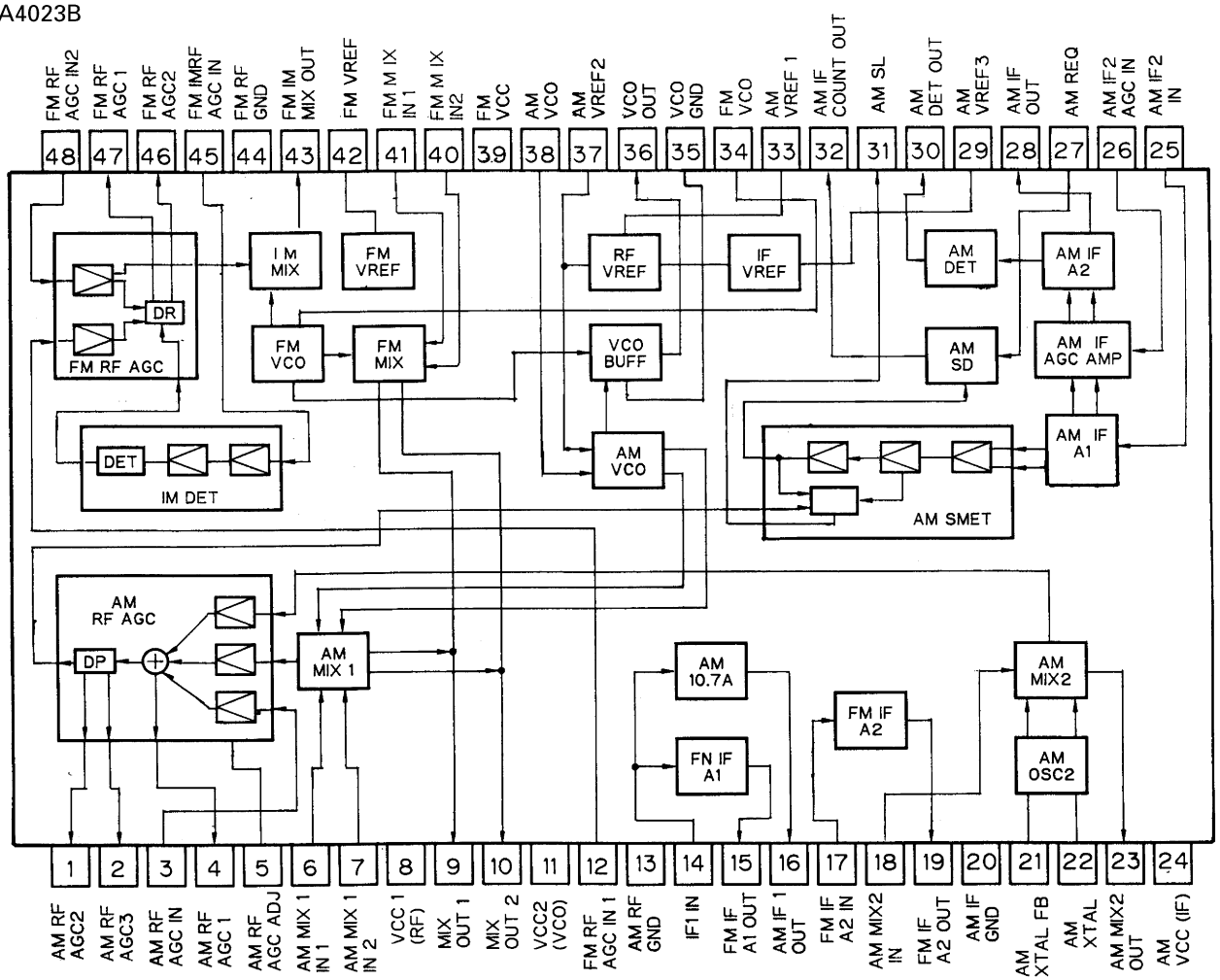


7. GENERAL INFORMATION

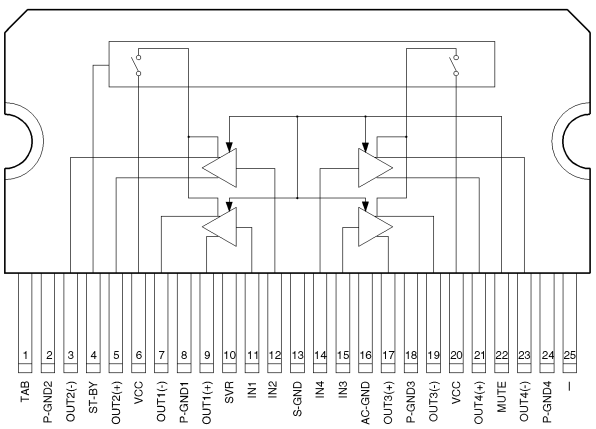
7.1 PARTS

7.1.1 IC

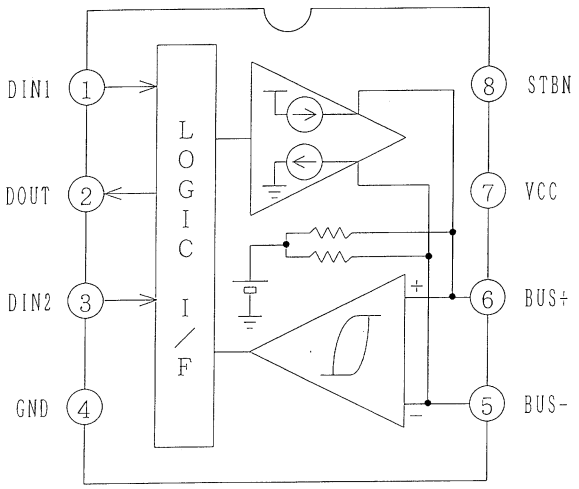
PA4023B



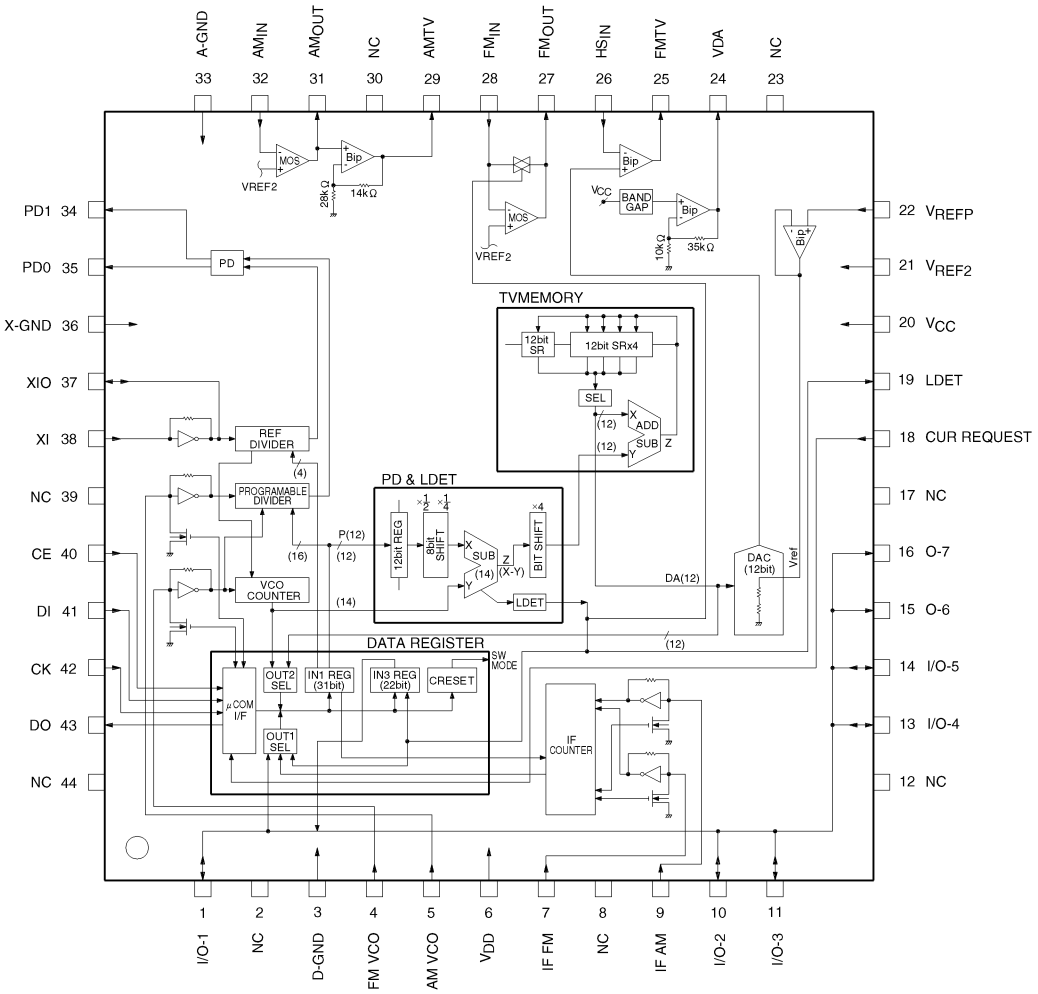
TDA7386



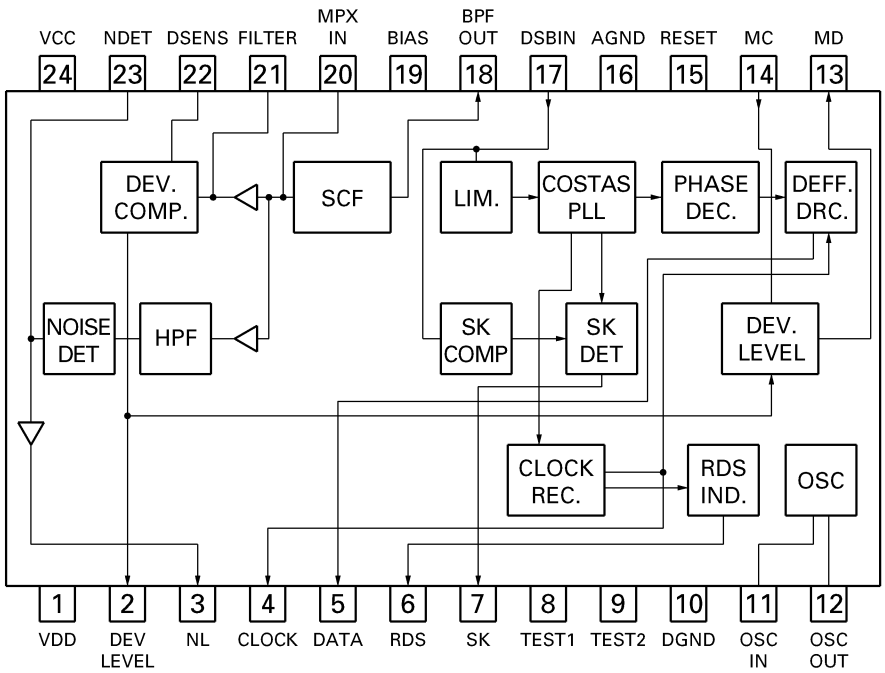
PM0008BF



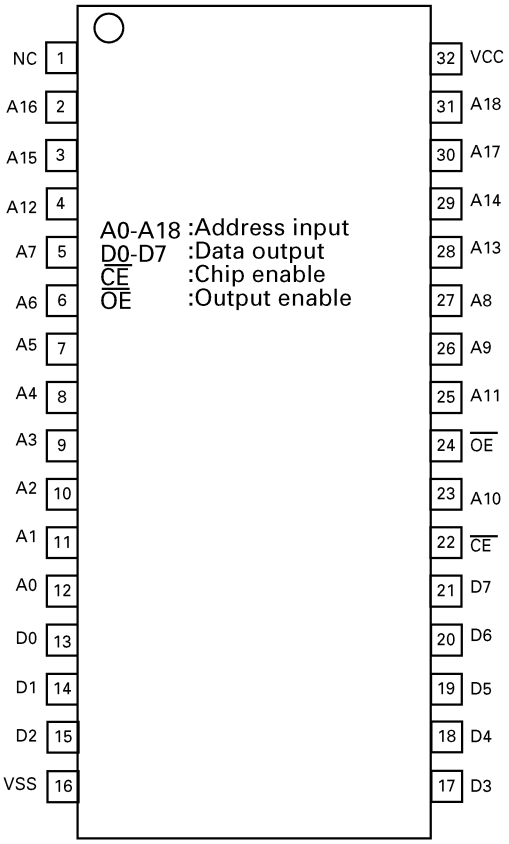
PM2005B



*PMW001B



*PD8027A



IC's marked by are MOS type.*
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

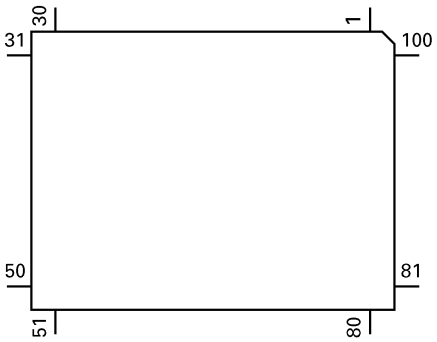
● Pin Functions (PD4771A)

Pin No.	Pin Name	I/O	Function and Operation
1	$\overline{\text{SWVDD}}$	O	Keyboard unit power supply control output
2	$\overline{\text{DSENS}}$	I	Grille detach sense input
3	$\overline{\text{CSENS}}$	I	Flap close sense input
4	$\overline{\text{ISENS}}$	I	Illumination power supply sense input
5	TESTIN	I	Test program mode input
6	$\overline{\text{DRST}}$	O	RDS reset output
7	ERROR	O	RDS disapprove of error correction output
8	$\overline{\text{SK}}$	I	RDS SK signal input
9	RECIVE	I	During RDS data reception output
10	$\overline{\text{L}}$/S	O	RDS fuzzy control output
11	$\overline{\text{RESET}}$	I	Reset input
12	XT2		Not used
13	XT1		Not used
14	VSS		GND
15	X2		Crystal oscillator connection pin
16	X1		Crystal oscillator connection pin
17	REGC		Connect to VDD
18	REGOFF		Connect to VDD
19	VDD		Power supply
20	ILMPW	O	Illumination power supply control output
21	SYSPWR	O	System power control
22	$\overline{\text{ADPW}}$	O	A/D converter power
23	LCDPW	O	LCD back light power supply control output
24	IPPW	O	Power supply control output for IP BUS interface IC
25	ASENBO	O	Slave power supply control output
26	AM	O	AM power output
27	TELIN	I	Telephone mute input

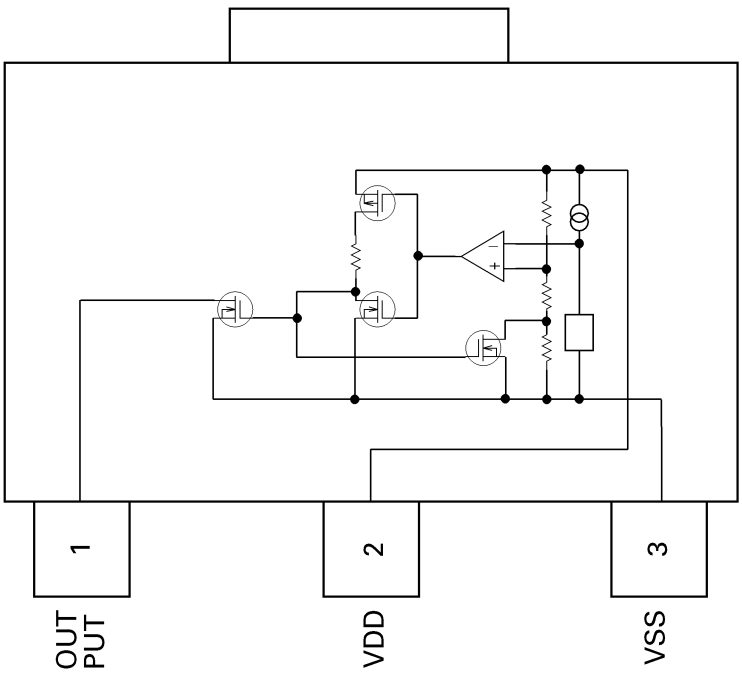
Pin No.	Pin Name	I/O	Function and Operation
28	MUTE	O	Mute output
29	DIM	O	Dimmer select output
30	SPMPX0	O	MPX output for spectrum analyzer
31	SPMPX1	O	MPX output for spectrum analyzer
32	SPMPX2	O	MPX output for spectrum analyzer
33	VCK	O	Clock output for electronic volume
34	VST	O	Strobe pulse output for electronic volume
35	VDT	O	Data output for electronic volume
36	$\overline{\text{TMUTE}}$	O	Tuner mute output
37	SEL1	I	Destination sense input
38	SD	I	SD input
39	$\overline{\text{ST}}$	I	FM stereo input
40	VSS		GND
41	VDD		Power supply
42	$\overline{\text{MDSENCE}}$	I	Modulation detect input
43	$\overline{\text{MUTCNT}}$	I	NF mute control input
44	$\overline{\text{RDSLK}}$	I	RDS LK signal input
45	$\overline{\text{CURRQ}}$	O	Tuner voltage FIX output
46	RDT	I	RDS demodulation data input
47	DRELAY	O	External relay output
48	DRSENS	I	Door open/close sense input
49	DRSYS	O	Door system select output
50	$\overline{\text{DLED}}$	O	Alarm LED output
51	DLSENS	I	Door lock sense input
52	STCUT	O	Starter cut off output
53	$\overline{\text{MOSENS}}$	I	Motion/window damage sensor input
54	CD5VON	O	CD +5V power supply control output
55	CONT	O	CD Servo driver power supply control
56	VDCONT	O	CD VD control output
57	CDMUTE	O	CD mute output
58	CDEJET	O	CD load motor eject control output
59	CDLOAD	O	CD LOAD motor loading control output
60	LOCK	I	CD spindle lock detector input
61	FOK	I	CD focus OK signal input
62	PCL	O	Clock adjustment output
63	MIRR	O	CD MIRR detection signal output terminal
64	$\overline{\text{CLAMP}}$	I	CD disc clamp sense input
65	$\overline{\text{XSCK}}$	O	CD LSI clock output
66	XSI	I	CD LSI data input
67	XSO	O	CD LSI data output
68	XA0	O	CD Control signal distinguishing data output
69	$\overline{\text{XRST}}$	O	CD LSI reset output
70	$\overline{\text{XSTB}}$	O	CD LSI strobe output
71	$\overline{\text{VSRS}}$	O	SRS output
72	VHIOUT	O	High output select output
73	TEST	I	Test terminal
74	SL	I	Signal level input from tuner
75	LEVEL	I	Level input for spectrum analyzer
76	CL	I	Detuning sense input
77	NL	I	RDS noise level input
78	EJTSNS	I	Disc EJECT position detect
79	DSCSNS	I	Disc detect
80	VDSENS	I	CD VD short detection input
81	TEMP	I	Temperature detect input
82,83	VDD		Positive power supply terminal for logic circuit
84	GND		GND
85	RX	I	IP BUS data input
86	TX	O	IP BUS data output

Pin No.	Pin Name	I/O	Function and Operation
87	GND		GND
88	$\overline{\text{LDET}}$	I	PLL lock sense input
89	RCK	I	RDS demodulation clock input
90	RDS57K	I	57kHz BP-OUT sense input
91	SEL0	I	Destination sense input
92	$\overline{\text{ASENS}}$	I	ACC power sense input
93	$\overline{\text{BSENS}}$	I	Back up power sense input
94	TUNPDI	I	PLL IC data input
95	KEYDT	I	Display data input
96	DPDT	O	Display data output
97	TUNPCK	O	PLL IC clock
98	TUNPDO	O	PLL IC data output
99	TUNPCE	O	PLL IC chip enable
100	PEE	O	Beep tone output

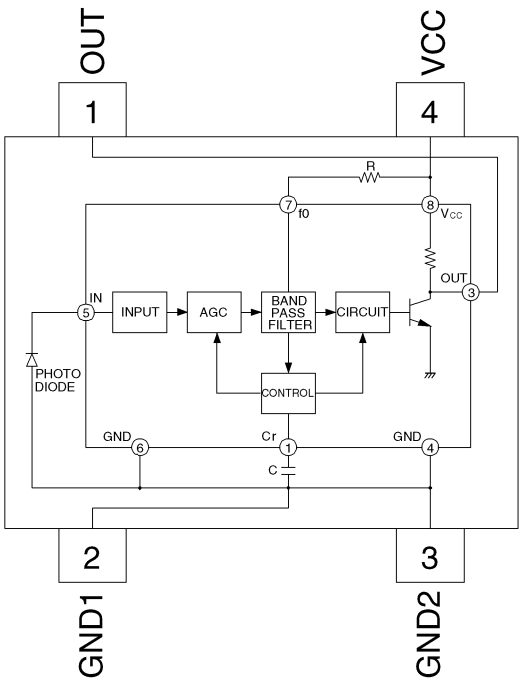
*PD4771A



S-80730ANDT



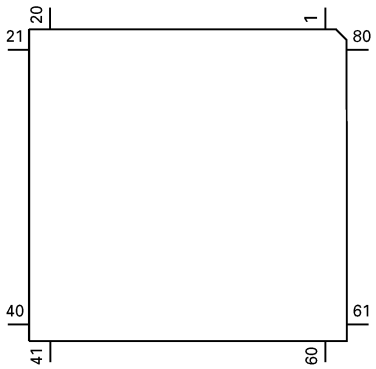
RS-140



● Pin Functions (PD6199A)

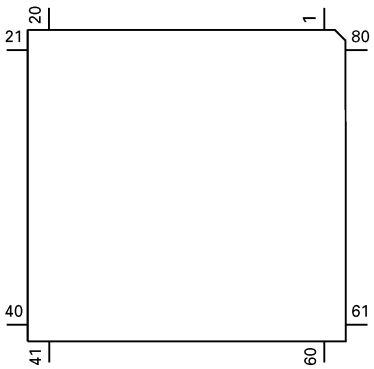
Pin No.	Pin Name	I/O	Format	Function and Operation
1	VSS			GND
2	XI	I		Crystal oscillator connection pin
3	XO	I		Crystal oscillator connection pin
4	$\overline{RST}$	I		System reset
5,6	MOD1,0	I		Model select input
7	LED	O	C	LED control output
8	SO	O	C	Key data output
9	SI	I		Serial data input
10	REM	I		Remote control reception
11	SDRQ	I		Reception error request input
12	ILM	O	C	Illumination color select output
13–16	KD4–KD1	I		Key sense input
17–22	KST6-1	O	N	Key strobe output
23	VCC			Power supply terminal
24–73	SEG49-0	O		LCD segment output
74–77	COM3–0	O		LCD common output
78–80	V3–V1			LCD Power supply terminal

*PD6199A



Format	Meaning
C	C MOS
N	N channel open drain

*PD6200A



● Pin Functions (PD6200A)

Pin No.	Pin Name	I/O	Function and Operation
1	VSS		GND
2	XI	I	Crystal oscillator connection pin
3	XO	I	Crystal oscillator connection pin
4	$\overline{RST}$	I	System reset
5,6	MOD1,0	I	Model select input
7,8	NC		Not used
9	SI	I	Serial data input
10	NC		Not used
11	RVER	O	Reception error output
12–22	NC		Not used
23	VCC		Power supply terminal
24–73	SEG49-0	O	LCD segment output
74–77	COM3–0	O	LCD common output
78–80	V3–V1		LCD Power supply terminal

7.1.2 DISPLAY

● CAW1403(DEH-P835R/EW)

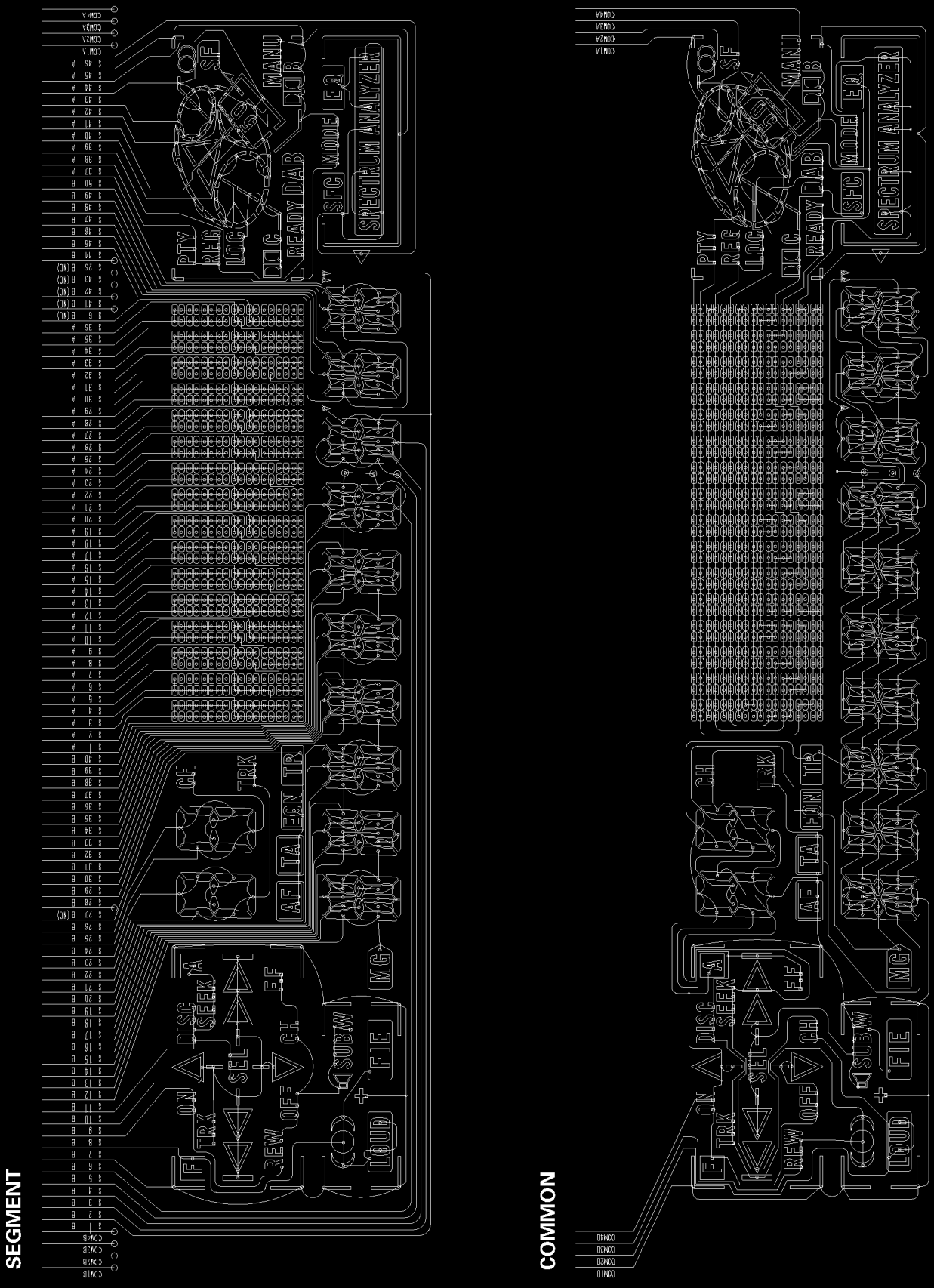


Fig. 23

● CAW1404(DEH-P735R/EW)

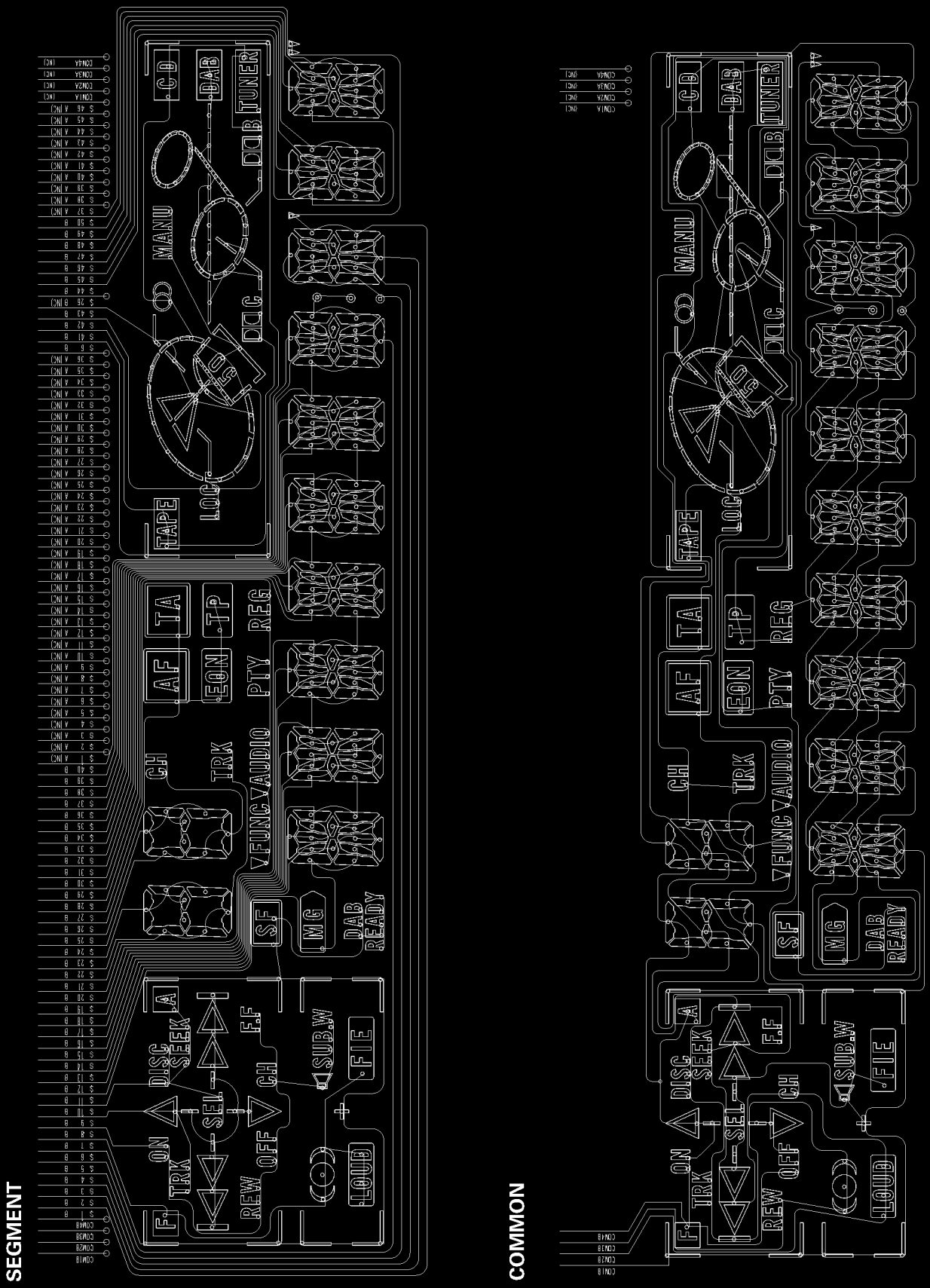


Fig. 24

7.2 DIAGNOSIS

7.2.1 DISASSEMBLY

● Removing the Case(Not shown)

1. Remove the two screws.
2. Insert and turn a flat screwdriver to remove the case.

● Removing the Detach Grille Assy(Fig.25)

1. Press the open button, and then pull Detach Grille Assy.

● Removing the Panel Assy(Fig.25)

1. Remove the two screws A.
2. Disconnect the two connectors.
3. Disconnect the two stoppers indicated by arrows, and then remove the Panel Assy.

● Removing the CD Mechanism Module(Fig.25)

1. Remove the four screws.
2. Disconnect the connector.
3. Remove the CD Mechanism Module.

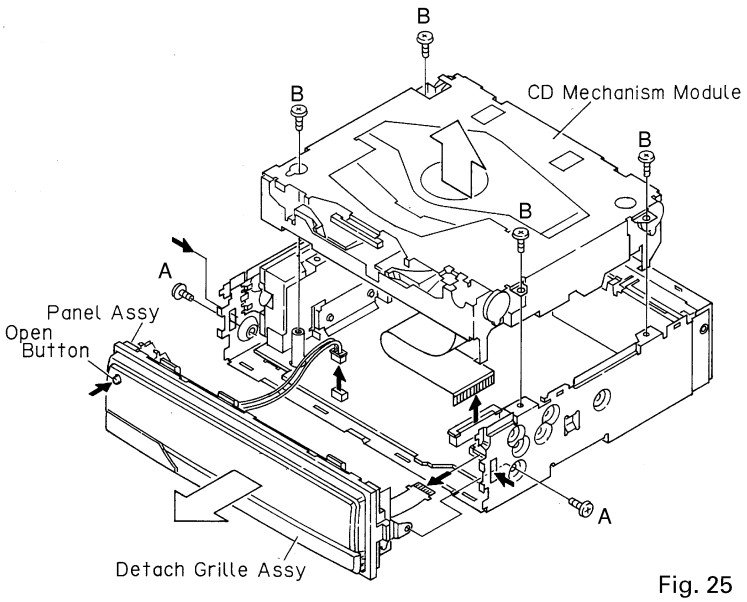


Fig. 25

● Removing the Chassis Unit(Fig.26)

1. Remove the two screws C, screw D, two screws E ,screw F, and screw G.
2. Stretch the four claws, and then remove the Chassis Unit.

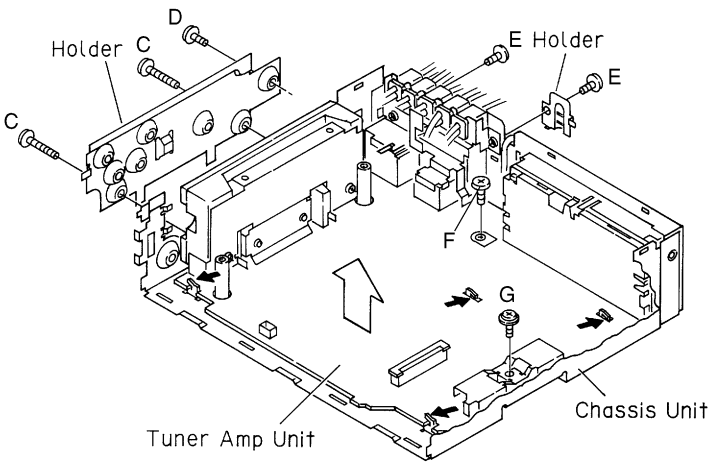


Fig. 26

7.2.2 TEST MODE

● CD Test Mode

1)Precautions

· This unit uses a single power supply (+5V) for the regulator. The signal reference potential, therefore, is connected to REFO(approx. 2.5V) instead of GND.
If REFO and GND are connected to each other by mistake during adjustments, not only will it be impossible to measure the potential correctly, but the servo will malfunction and a severe shock will be applied to the pick-up. To avoid this, take special note of the following.
Do not connect the negative probe of the measuring equipment to REFO and GND together. It is especially important not to connect the channel 1 negative probe of the oscilloscope to REFO with the channel 2 negative probe connected to GND.
Since the frame of the measuring instrument is usually at the same potential as the negative probe, change the frame of the measuring instrument to floating status.
If by accident REFO comes in contact with GND, immediately switch the regulator or power OFF.

· Always make sure the regulator is OFF when connecting and disconnecting the various filters and wiring required for measurements.

· Before proceeding to further adjustments and measurements after switching regulator ON, let the player run for about one minute to allow the circuits to stabilize.

· Since the protective systems in the unit's software are rendered inoperative in test mode, be very careful to avoid mechanical and /or electrical shocks to the system when making adjustment.

· Test mode starting procedure
Switch ACC, back-up ON while pressing the **4** and **6** keys together.

· Test mode cancellation
Switch ACC, back-up OFF.

· Disc detection during loading and eject operations is performed by means of a photo transistor in this unit.Consequently, if the inside of the unit is exposed to a strong light source when the outer casing is removed for repairs or adjustment, the following malfunctions may occur.
*During PLAY, even if the eject button is pressed,the disc will not be ejected and the unit will remain in the PLAY mode.
*The unit will not load a disc.
When the unit malfunctions this way, either re-position the light source, move the unit or cover the photo transistor.

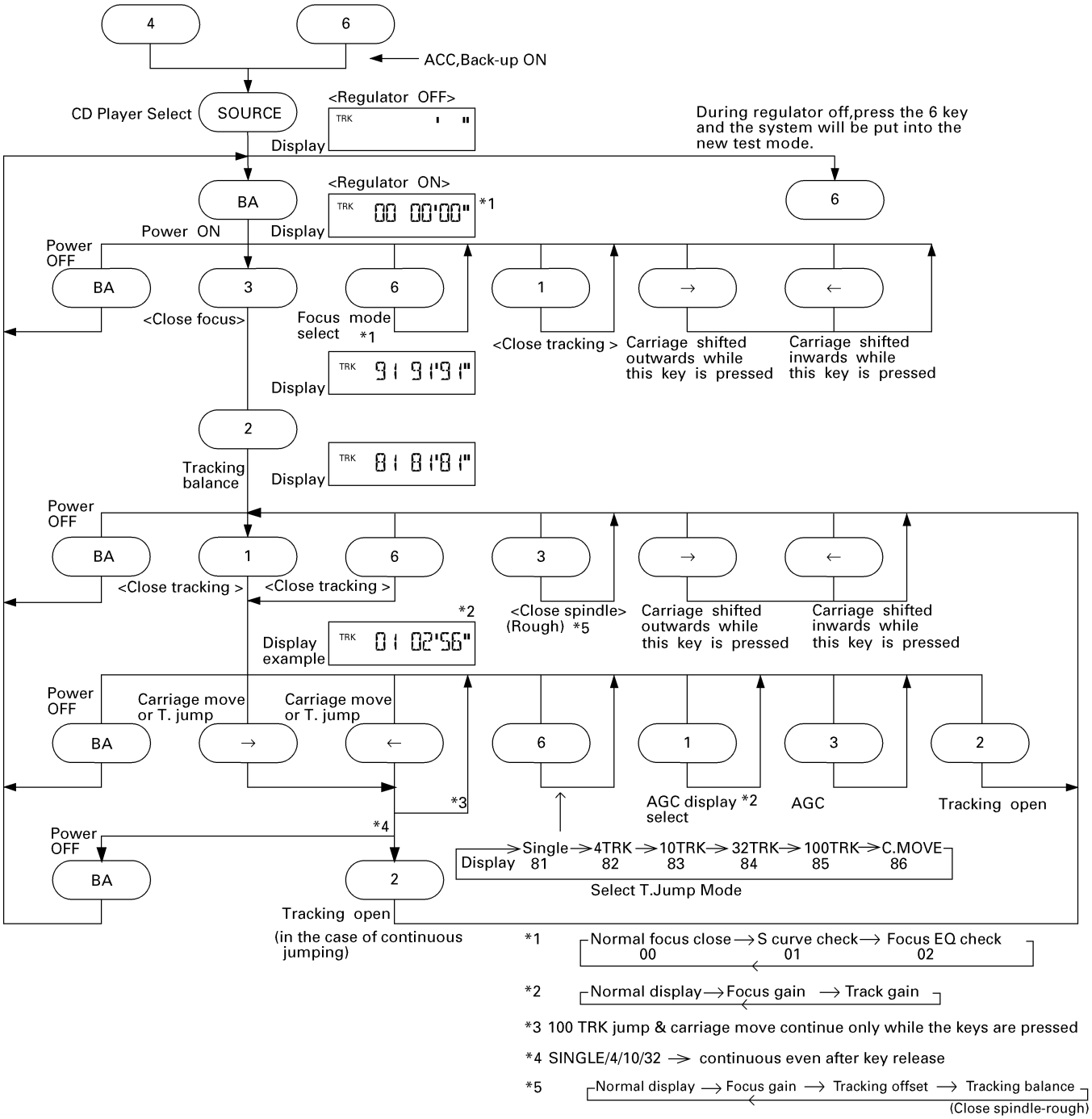
· When loading and unloading discs during adjustment procedures, always wait for the disc to be properly clamped or ejected before pressing another key. Otherwise, there is a risk of the actuator being destroyed.

· Turn power off when pressing the button → or the button ← key for focus search in the test mode. (Or else lens may stick and the actuator may be damaged.)

· SINGLE/4TRK/10TRK/32TRK will continue to operate even after the key is released.Tracking is closed the moment C-MOVE is released.

· JUMP MODE resets to SINGLE as soon as power is switched OFF.

● Flow Chart


4
6
ACC,Back-up ON
CD Player Select
SOURCE
<Regulator OFF>
Display
During regulator off,press the 6 key and the system will be put into the new test mode.
BA
<Regulator ON>
Power ON
Display
*1
6
Power OFF
BA
3
6
1
→
←
<Close focus>
Focus mode select *1
<Close tracking >
Carriage shifted outwards while this key is pressed
Carriage shifted inwards while this key is pressed
Display
2
Tracking balance
Display
Power OFF
BA
1
6
3
→
←
<Close tracking >
<Close tracking >
*2
<Close spindle> (Rough) *5
Carriage shifted outwards while this key is pressed
Carriage shifted inwards while this key is pressed
Display example
Power OFF
Carriage move or T. jump
Carriage move or T. jump
BA
→
←
6
1
3
2
*3
AGC display *2 select
AGC
Tracking open
*4
Power OFF
Display
Single
4TRK
10TRK
32TRK
100TRK
C.MOVE
81
82
83
84
85
86
Select T.Jump Mode
BA
2
Tracking open
(in the case of continuous jumping)
*1 Normal focus close → S curve check → Focus EQ check
00 01 02
*2 Normal display → Focus gain → Track gain
*3 100 TRK jump & carriage move continue only while the keys are pressed
*4 SINGLE/4/10/32 → continuous even after key release
*5 Normal display → Focus gain → Tracking offset → Tracking balance
(Close spindle-rough)

● Error Number Indication

If the CD should fail to operate or if an error has taken place during operation the player will enter into the error mode, and the cause of the error will be numerically indicated.

This is aimed at assisting in analysis or repair.

(1) Basic Means of Display

・With ERROR indicated in "MODE" on IP-BUS Display data, an error code is transmitted by the use of MIN and SEC. The MIN and SEC data will be identical.

・Examples of Display ERROR-XX

(2) Error Codes

Error Code	Classification	Description	Cause/Detail
10	ELECTRIC	Carriage home failure	Carriage doesn't move to or from the innermost position →Home switch failed and/or carriage immobile
11	ELECTRIC	Focus failure	Focus failed →Defects, disc upside-down, severe vibration
12	ELECTRIC	SETUP failure Subcode failure	Spindle failed to lock or subcode unreadable →Spindle defective, defect, severe vibration
14	ELECTRIC	Mirror failure	Unrecorded CD-R The disc is upside-down, defects, vibration
17	ELECTRIC	Set up failure	AGC protect failed →Defects, disc upside-down, severe vibration
19	ELECTRIC	Set up failure	Tracking error waveform is too unbalanced (>50%) or level is too small →The P.U.unit or tracking error circuitry is N.G.
30	ELECTRIC	Search time out	Failed to reach target address →Carriage/tracking defective and/or defects
A0	SYSTEM	Power failure	Power overvoltage or short circuit detected →Switching transistor defective and/or power abnormal

"defects" means scratches, dirt etc an the surface of the disc.

● New Test Mode(aging operation and setup analysis)

The single CD player plays in normal mode. After being set up, it will display FOK (focus), LOCK (spindle), subcode, sound skip, protection against a mechanical error or the like, occurrence of an error, cause and time of an expiry, if any, (and disc number).

During the setup, the CD software operation status (internal RAM and C-point)is displayed.

(1) How to enter NEW TEST Mode

See the test mode flow chart Page 71.

(2) Relations of keys between TEST and NEW TEST Modes

Keys	Test Mode		New Test Mode	
	Regulator OFF	Regulator ON	PLAY in progress	Error Occurred, Protection Activated
BA	Regulator ON	Regulator OFF	—	Time of occurrence / cause of error select
→	—	FWD-KICK	TRACK+ / FF	—
←	—	REV-KICK	TRACK- / REV	—
1	—	TRACKING CLOSE	SCAN	—
2	—	TRACKING OPEN	REPEAT	—
3	—	FOCUS CLOSE	RANDOM	—
6	To New Test Mode Select	FOCUS MODE	AUTO/MANU	—

Operations, such as EJECT, CD ON/OFF, etc. are performed normally.

(3) Error Cause (Error Number) Code

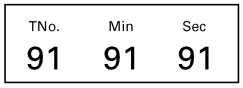
Error Code	Classification	Mode	Description	Cause	Detail
40	ELECTRIC	PLAY	FOK=L 100ms	Put out of focus	Scratch, Stain, Vibration, Servo defect, etc...
41	ELECTRIC	PLAY	LOCK=L 100ms	Spindle unlock	
42	ELECTRIC	PLAY	Subcode unacceptable 500ms	Failed to read subcode	
43	ELECTRIC	PLAY	Sound skipped	Last address memory operated	

(4) Indicating an Operation Status During Setup

Status No.	Description	Protection operation
01	Carriage home mode started	None
02	Carriage moving inwards	10-second time out, Home switch failed
03	Carriage moving outwards	10-second time out, Home switch failed
05	Carriage moving outwards	None
11	Setup started	None
12	Spindle turn/Focus search started	None
13	Waiting for focus closure (XSI=L)	Failure to close focus
10,14	Waiting for focus closure (FOK=H)	Failure to close focus
15, 16, 17	Focus closed, Tracking open	Focus disrupted
18	During focus AGC Subcode waiting	Focus disrupted
19	During tracking AGC	Disrupted focus
20	Waiting for MIRR, LOCK or subcode read Carriage closed, SPINDLE=ADAPTIVE	Focus disrupted, MIRR NG, Failure to lock, Failed to read subcode

(5) Example of Display.

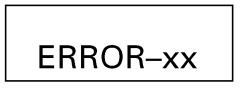
·SET UP in progress



·Operation (PLAY, SEARCH, etc.) in progress perfectly identical with that in the normal mode.

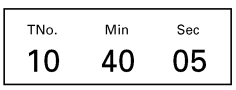
·Protection/Error upon occurrence

(a) Error number indicated



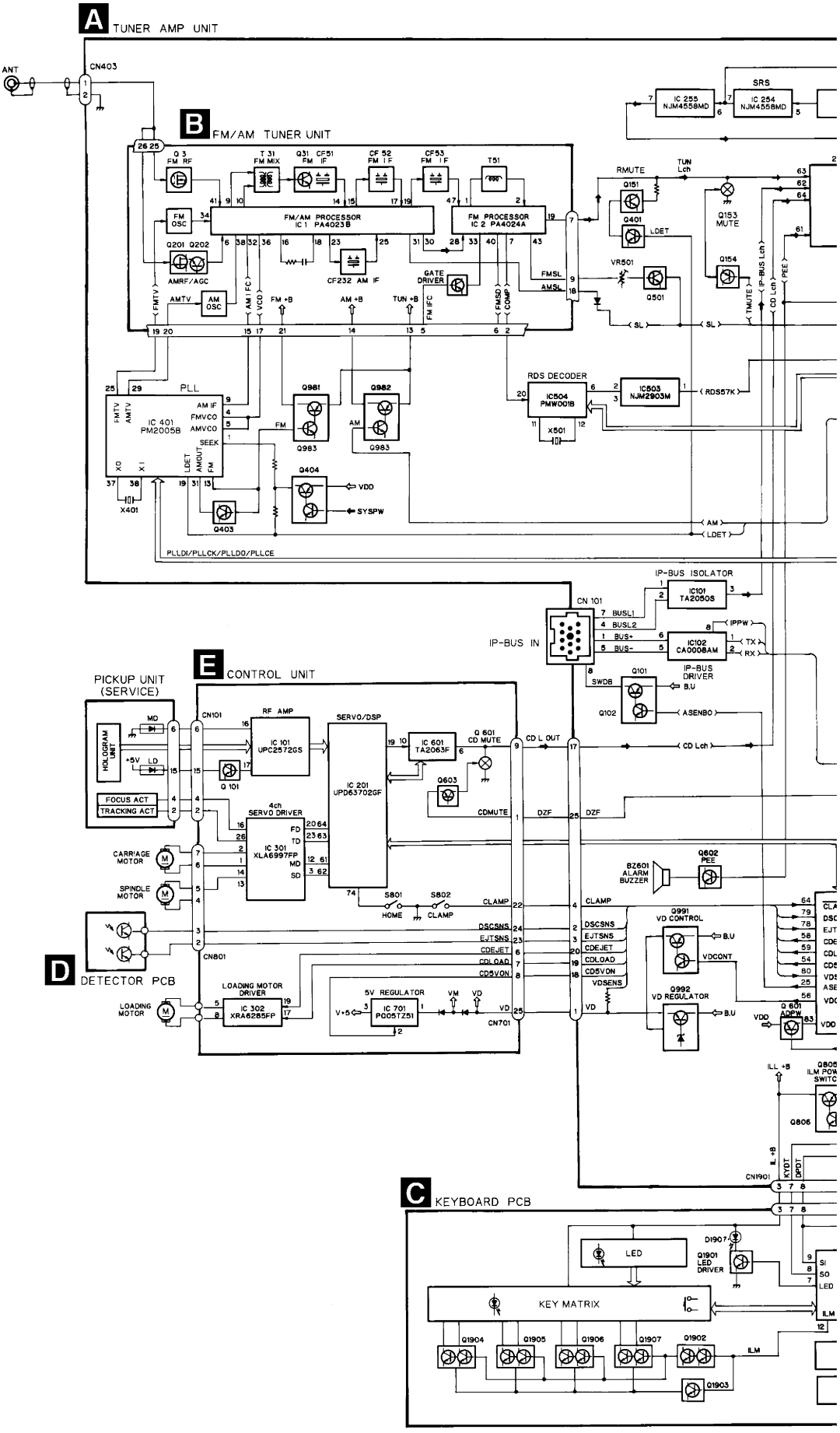
Select the display with the BAND key.

(b) Track number and absolute time indicated



7.3 BLOCK DIAGRAM

● DEH-P835R/EW



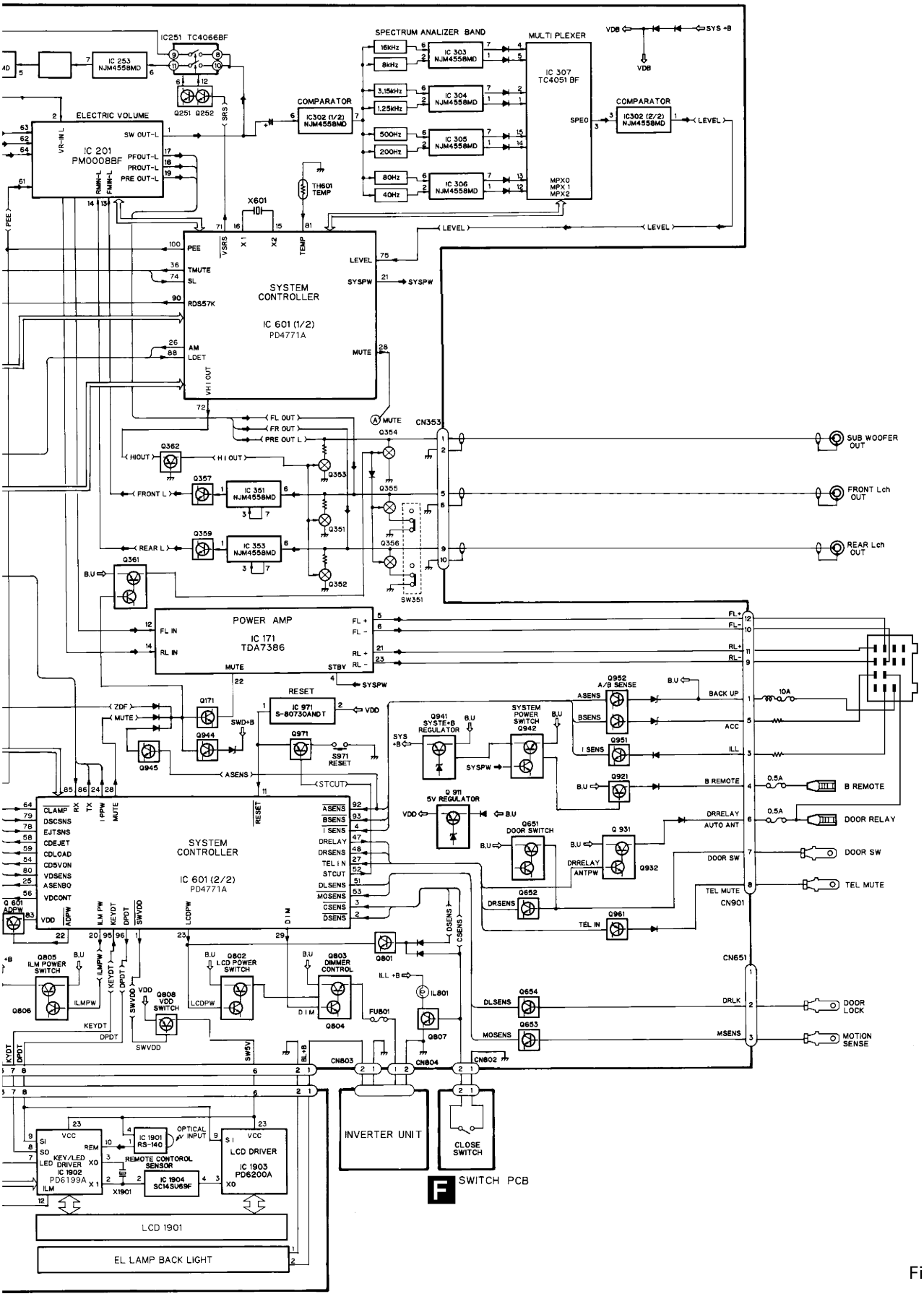

IC251 TC4066BF
IC 253 NJM4558MD
Q251 Q252
ELECTRIC VOLUME
IC 201 PM0008BF
SW OUT-L
PFOUT-L
PROUT-L
PRE OUT-L
COMPARATOR
IC302 (1/2) NJM4558MD
SPECTRUM ANALIZER BAND
16kHz
8kHz
3.15kHz
1.25kHz
500Hz
200Hz
80Hz
40Hz
IC 303 NJM4558MD
IC 304 NJM4558MD
IC 305 NJM4558MD
IC 306 NJM4558MD
MULTI PLEXER
IC 307 TC4051 BF
MPX0
MPX 1
MPX2
SPEO
COMPARATOR
IC302 (2/2) NJM4558MD
LEVEL
VDB
SYS +B
TH601 TEMP
X601
SYSTEM CONTROLLER
IC 601 (1/2) PD4771A
PEE
TMUTE
SL
RDS57K
AM
LDET
VHI OUT
LEVEL
SYSPW
MUTE
FL OUT
FR OUT
PRE OUT L
HIOUT
HI OUT
FRONT L
REAR L
Q362
Q357
Q359
Q361
Q354
Q353
Q355
Q351
Q356
Q352
IC 351 NJM4558MD
IC 353 NJM4558MD
CN353
SW351
SUB WOOFER OUT
FRONT Lch OUT
REAR Lch OUT
POWER AMP
IC 171 TDA7386
FL IN
RL IN
MUTE
STBY
FL +
FL -
RL +
RL -
SYSPW
RESET
IC 971 S-80730ANDT
Q971
SW971 RESET
Q171
Q944
Q945
SWD+B
ZDF
MUTE
ASENS
STCUT
SYSTEM CONTROLLER
IC 601 (2/2) PD4771A
CLAMP
DSCSNS
EJTSNS
CDEJET
CDLOAD
CD5VON
VDSENS
ASENBO
VDCONT
VDD
ADPW
ILM PW
KEYDT
DPDT
SWVDD
LCDPW
DIM
BSENS
I SENS
DRELAY
DRSENS
TEL I N
DLSENS
MOSENS
CSENS
DSENS
OSENS
Q941 SYSTE+8 REGULATOR
SYSTEM POWER SWITCH Q942
Q911 5V REGULATOR
Q651 DOOR SWITCH
Q652
Q961
Q931
Q932
Q921
Q951
Q952 A/B SENSE
BACK UP
ACC
ILL
B REMOTE
DOOR RELAY
DOOR SW
TEL MUTE
TEL IN
DRRELAY
AUTO ANT
ANTPW
10A
0.5A
CN901
CN651
DRLK
MSENS
DOOR LOCK
MOTION SENSE
Q805 ILM POWER SWITCH
Q806
Q802 LCD POWER SWITCH
Q803 DIMMER CONTROL
Q804
Q808 VDD SWITCH
Q801
IL801
Q807
FU801
Q654
Q653
CN803
CN804
CN802
INVERTER UNIT
CLOSE SWITCH
IC 1901 RS-140
OPTICAL INPUT
REMOTE CONTOROL SENSOR
KEY/LED LED DRIVER IC 1902 PD6199A
LCD DRIVER IC 1903 PD6200A
IC 1904 SC14SU69F
X1901
LCD 1901
EL LAMP BACK LIGHT
F SWITCH PCB

Fig. 27

8. OPERATIONS AND SPECIFICATIONS

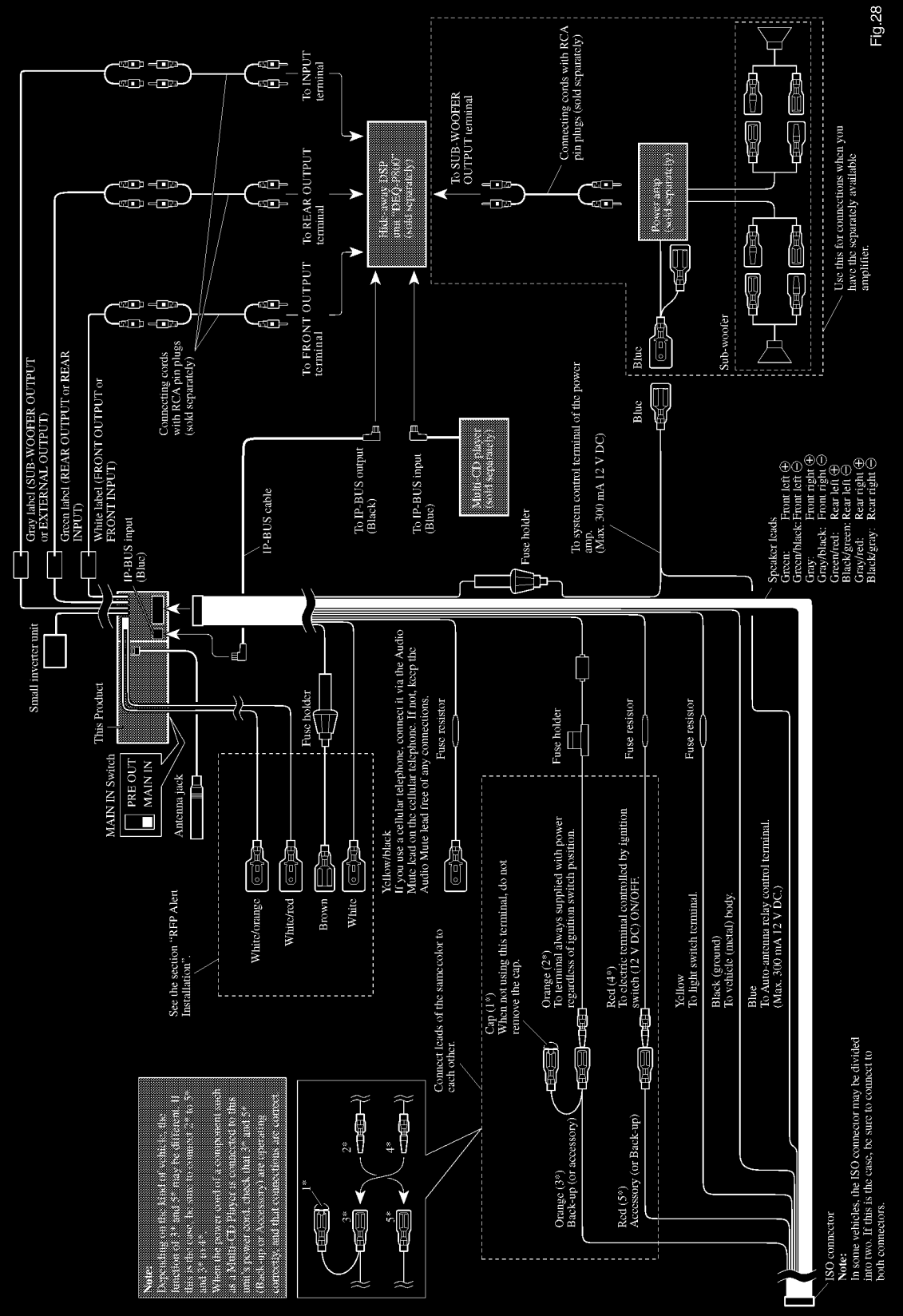


Fig.28

Connecting the Units <ENGLISH>

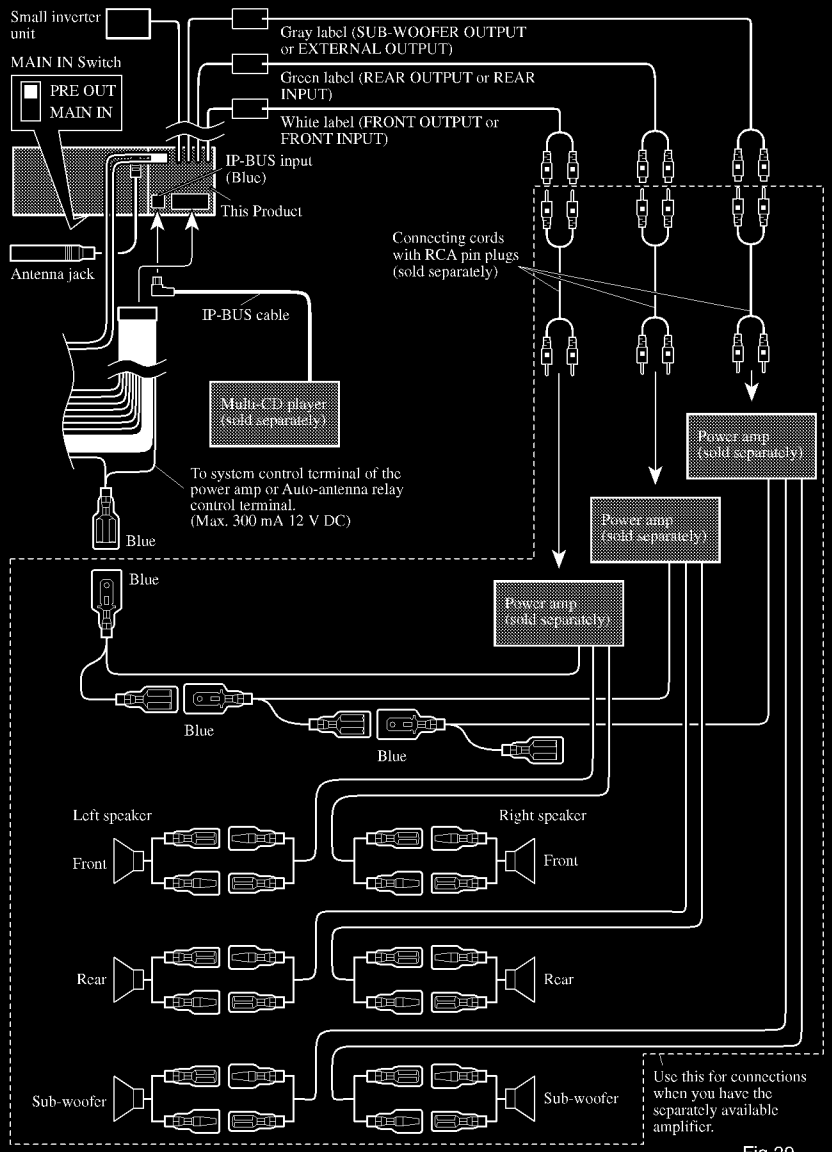
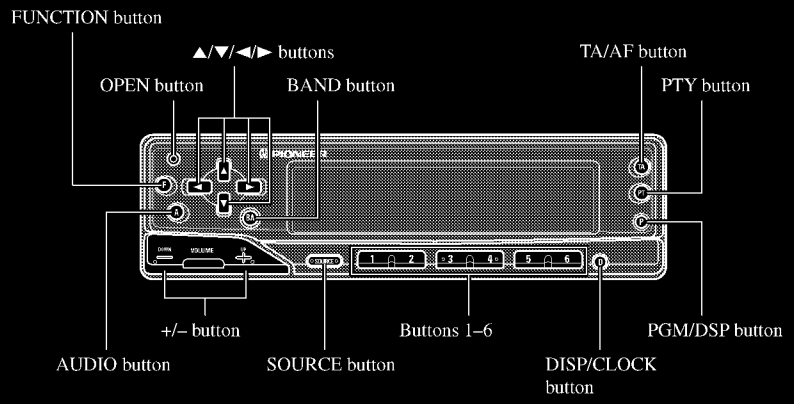


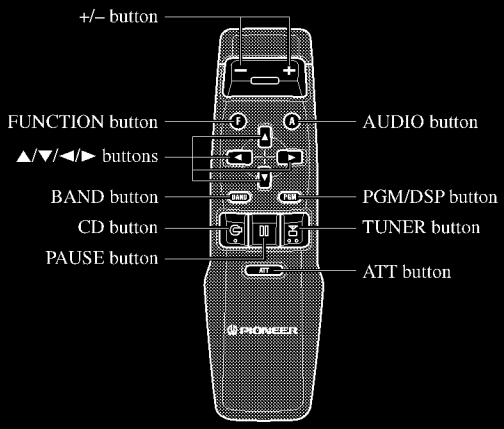
Fig.29

Key Finder

■ Head Unit



■ Remote Controller



Basic Operation

Switching Power ON/OFF

- **Select the desired source (such as the tuner).**

■ Head Unit

Each press of the SOURCE button selects the desired source in the following order:
Built-in CD Player → Tuner → Multi-CD player → AUX

To switch the sources OFF, hold down the SOURCE button for 1 second or more.

■ Remote Controller

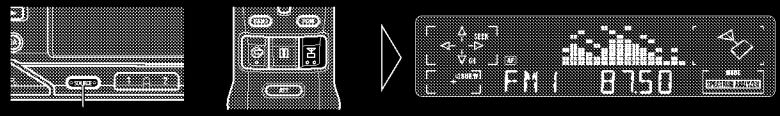
Each press of the button selects the desired source in the following order:
TUNER button : Tuner → OFF
CD button : Built-in CD Player → Multi-CD player → OFF

Note:
- In the following cases, the sound source will not change:
  * No Multi-CD player is connected to this product.
  * No disc is set in this product.
  * No magazine is set in the Multi-CD player.
  * AUX (external input) is set to OFF.

Tuner Operation

Basic Operation of Tuner

1. **Select Tuner.**



Each press
changes the Source ...

The program service name or frequency appears on the display.

2. **Select the desired band.**

FM1 → FM2 → FM3 → MW/LW

3. **Tune the receiver to a higher or lower frequency.**

"◯"

This product's tuner lets you select the tuning by changing the length of the time you press the button.

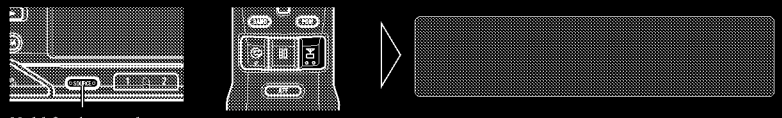
Manual Tuning (step by step)	0.3 seconds or less
Seek Tuning (automatically)	0.3 – 2 seconds
Manual Tuning (continuously)	2 seconds or more

Note:
- "◯" indicator lights when a stereo station is selected.
- To select a weak broadcasting station that cannot be tuned in with the Seek Tuning function, tune in with Manual Tuning.

Tuner Operation

4. **Raise or lower the volume.**

5. **Turn the source OFF.**



Hold for 1 second

AF Function Switching

This product's AF function can be switched ON and OFF. AF should be switched OFF for normal tuning operations.

- **Switch AF OFF.**

Hold for 2 seconds

"AF" disappears

To switch AF ON, repeat the preceding operation.

Note:

- You can also switch the AF Function ON/OFF in the Function Menu.

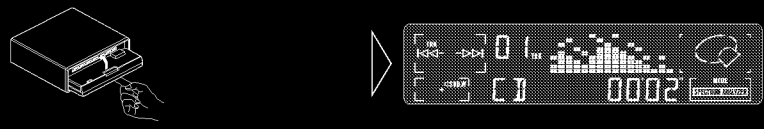
Using the Built-in CD Player

Basic Operation of Built-in CD Player

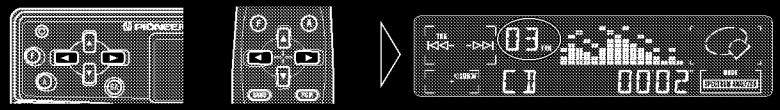
The built-in CD player plays one standard 12 cm or 8 cm (single) CD at a time. Do not use an adapter when playing 8 cm CD.

1. **Open the front panel and insert the disc with the recorded (iridescent) surface down.**

2. **Close the front panel by swinging it gently upward.**



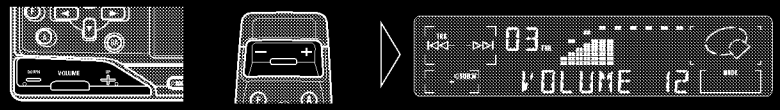
3. **Select the desired track (or fast-foward/reverse, per the chart below).**



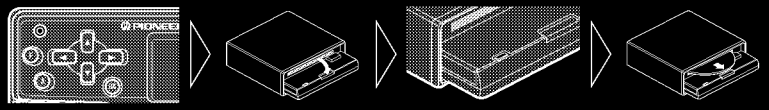
This product's built-in CD player lets you select the Track Search function or Fast-forward/Reverse function by changing the length of the time you press the button.

Track Search	0.5 seconds or less
Fast-forward/Reverse	Continue pressing

4. **Raise or lower the volume.**



5. Open the front panel and remove the disc.



Be sure to close the front panel after removing the disc.

Note:
- The CD function can be turned ON/OFF with the disc remaining in this product. (See page 9.)
- Discs left partially inserted after ejection may incur damage or fall out.
- If a disc cannot be inserted fully or playback fails, make sure the recorded side is down, push the EJECT button and check the disc for damage before reinserting it.
- If a CD is inserted with the recorded side up, it will be ejected automatically after a few moments.
- If the built-in CD player cannot operate properly, an error message (such as "ERROR-14") appears on the display.

Pause

- **Stop playback temporarily or restarts the system.**

Note:
- You can also switch the Pause function ON/OFF in the Function Menu.

Using Multi-CD Players

This product can control one or more multi-CD players.

Basic Operation of Multi-CD Players

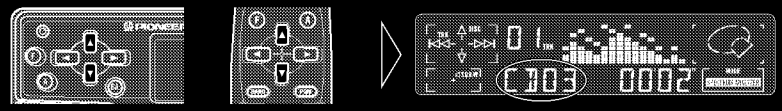
1. Select the multi-CD player source.

Each press changes the Source ...

Each press changes the Source ...

Note:
- The multi-CD player may perform a preparatory operation, such as verifying the presence of a disc or reading disc information, when the power is turned ON or a new disc is selected for playback. "READY" is displayed.
- If the multi-CD player cannot operate properly, an error message such as "ERROR-14" is displayed. Refer to the multi-CD player owner's manual.
- If there are no discs in the multi-CD player magazine, "NO DISC" is displayed.

2. Select the desired disc.



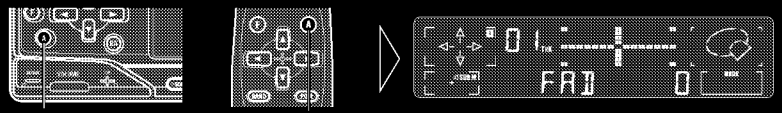
3. Select the desired track (or fast-forward/reverse, per the chart below).

This product lets you select the track search function or fast-forward/reverse function by changing the length of the time you press the button.

Track search	0.5 seconds or less
Fast-forward/Reverse	Continue pressing

Entering the Audio Menu

- **Select the mode you want to adjust in Audio Menu.**



Each press changes the Mode ...

Each press changes the Mode ...

Each press of the AUDIO button selects the mode in the following order:
FAD → BAS* → MID* → TRE* → LOUD → SUB.W** → (80HZ 0)** → (ASL)* → FIE → 3D_SRND* → PEAKBOUND → SLA

* You cannot select the "BAS", "MID", "TRE" and "3D_SRND" modes when a Hide-away DSP "DEQ-P800" is connected to this product.
You can select the "ASL" mode only when a Hide-away DSP "DEQ-P800" is connected to this product.

** You cannot select the "SUB.W" and "80Hz 0" modes when a DSP (except the Hide-away DSP) is connected to this product.

To cancel the Audio Menu, press the BAND button.

Note:
- You can select the "80HZ 0" mode only when sub-woofer output is switched ON in the SUB.W mode.
- After entering the Audio Menu, if you do not perform an operation which 30 seconds, the Audio Menu is automatically canceled.

Balance Adjustment

This function allows you to select a Fader/Balance setting that provides ideal listening conditions in all occupied seats.

1. **Select the Fader/Balance mode (FAD) in the Audio Menu.**
2. **Shift the balance progressively to the front or rear speakers.**

"FAD F15" – "FAD R15" is displayed as it moves from front to rear.
("FAD F9" – "FAD R9" is displayed as it moves from front to rear when a Hide-away DSP "DEQ-P800" is connected to this product.)

3. **Shift the balance to the left or right speaker, respectively.**

"BAL L9" – "BAL R9" is displayed as it moves from left to right.

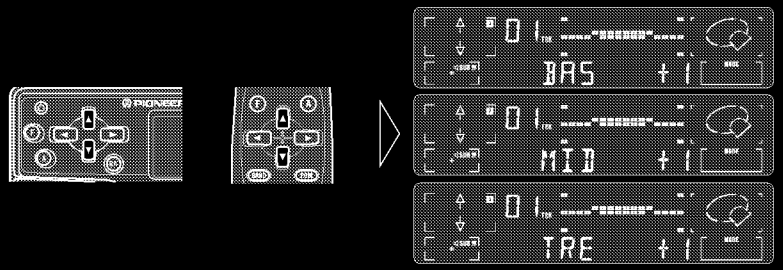
To cancel the Audio Menu, press the BAND button.

Note:
- "FAD 0" is the proper setting when 2 speakers are in use.
- You cannot shift the balance progressively to the front or rear speakers when a DSP (except the Hide-away DSP) is connected to this product.

Bass/Middle/Treble Adjustment

This product is equipped with three tone adjustment modes, the Bass (BAS), Middle (MID) and Treble (TRE) modes. It is possible to select a different tone adjustment setting for each source.The built-in CD player and multi-CD player are set to the same tone adjustment setting automatically.

1. **Select bass mode (BAS), middle mode (MID) or treble mode (TRE) in the Audio Menu.**
2. **Increase or decrease the intensity of the Bass, Middle or Treble, whichever is selected.**



The display shows "+6" – "–6".

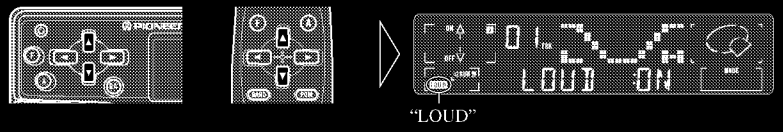
3. **Repeat steps 1–2 above for the other Bass, Middle or Treble Adjustment.**

To cancel the Audio Menu, press the BAND button.

Loudness Adjustment

The Loudness function compensates for deficiencies in the low and high sound ranges at low volume.

1. **Select the Loudness mode (LOUD) in the Audio Menu.**
2. **Switch the Loudness function ON or OFF.**



"LOUD"

To cancel the Audio Menu, press the BAND button.

General

Power source ..... 14.4 V DC (10.8 – 15.1 V allowable)
Grounding system ..... Negative type
Max. current consumption ..... 10 A
Dimensions
(mounting size) ..... 178 (W) × 50 (H) × 155 (D) mm
(front face) ..... 188 (W) × 58 (H) × 18 (D) mm
Weight ..... 1.4 kg

Amplifier

Maximum power output ..... 40 W × 4
Continuous power output ..... 25 W × 4
(DIN45324, +B = 14.4 V)
Load impedance ..... 4 Ω (4 – 8 Ω allowable)
Preout output level/output impedance ..... 500 mV/1 kΩ
Sub-woofer output
Crossover frequency .....50 Hz, 80 Hz, 125 Hz
Crossover slope .....–18 dB/oct
Tone controls
(Bass) ..... ±12 dB (100 Hz)
(Middle) .....±12 dB (400 Hz)
(Treble) ..... ±12 dB (10 kHz)
Loudness contour ..... +10 dB (100 Hz), +7 dB (10 kHz)
(volume: –30 dB)

CD player

System ..... Compact disc audio system
Usable discs ..... Compact disc
Signal format ..... Sampling frequency: 44.1 kHz
Number of quantization bits: 16; linear
Frequency characteristics ..... 5 – 20,000 Hz (±1 dB)
Signal-to-noise ratio ..... 94 dB (1 kHz) (IEC-A network)
Dynamic range ..... 90 dB (1 kHz)
Number of channels ..... 2 (stereo)

FM tuner

Frequency range ..... 87.5 – 108 MHz
Usable sensitivity
..... 11 dBf (1.0 µV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity .... 16 dBf (1.7 µV/75 Ω, mono)
Signal-to-noise ratio ..... 70 dB (IEC-A network)
Distortion ..... 0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response ..... 30 – 15,000 Hz (±3 dB)
Stereo separation ..... 40 dB (at 65 dBf, 1 kHz)

MW tuner

Frequency range ..... 531 – 1,602 kHz
Usable sensitivity ..... 18 µV (25 dB) (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)

LW tuner

Frequency range ..... 153 – 281 kHz
Usable sensitivity ..... 30 µV (30 dB) (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)

Note:

- Specifications and the design are subject to possible modification without notice due to improvements.

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